JOURNAL
MISSOURI STATE MEDICAL
ASSOCIATION.

VOLUME II. AUGUST. NUMBER 2

ORIGINAL ARTICLES.

TUBERCULOSIS THE PROBLEM FOR THE GENERAL PRACTITIONER.*

By William Porter, M. D., of St. Louis.

Each age brings its opportunities and conquests. If the man who makes two blades of grass to grow in place of one is a benefactor, the physician who saves one life where, otherwise, two were doomed, is something more. In speaking to the general practitioner to-day I have a hesitancy, born of recognition of the strength and sanctity of his relationship to the people. The typical friend and protector is the skilled physician, intrenched in the confidence of the community, familiar with the history and tendency of each family, possibly of each member of the family; ready at all times to bring his skill and sympathy to aid in the hour of supremest need. Yet it is the knowledge of this very relationship that impels the earnest student of tuberculosis to reach out for the strong grasp of the family physician, and to say if there is to be a limit set to this dread disease it must be your work, rather than that of the specialist and the worker in the laboratory. It is yours to see the foe in the home and its strongholds, even before it is aggressive; we but see it after more mature development. In this short paper I want to urge a few propositions, not new or complete, but thoughts that may set us all to thinking—words that may be the precursor of deeds.

The necessity for our best effort is great. At present rates about seven millions of people now living in the United States will die of tuberculosis—in your state and mine, in each village and hamlet and home, at least one-tenth! In the families of which we of this association are guardians, how many? How many in the last half decade? The vampire of fable was satisfied for a time, at least, with one victim, but this monster turns from the empty veins of its latest conquest to fasten upon those who have given their strength and tenderness to stay a losing fight. If this were inevitable we might be stoics enough

*Prepared for the Annual Meeting of the Missouri State Medical Association, 1905.

to accept the dire result, but when Pasteur tells us, with "words that can never die," "It is within the power of man to cause all parasitic diseases to disappear from the earth;" when the men of New York and Philadelphia announce that they have in ten years lessened the mortality 40 and 43 per cent.; when other parasitic contagious or communicable diseases have been almost stamped out; when so much is known of the etiology and conditions of transmission in this disease, and that the knowledge is favorable to its unlimited limitation, there is only the need for us to say "the responsibility is ours," and the fight is won.

To the physicans of Missouri I have a proposition to make. It is startling, but practical. I want you to join in a work which will save 120,000 of those now living in our state from death by tuberculosis. It can be done. More than this, it is you and only you who can do it. This is not a sensational statement. Far from it; it is a solemn deduction from plain, easily proven propositions. We cannot avoid it. Our population is over 3,000,000. At present rates at least one-tenth (300,000) will die of tuberculosis. In eastern cities the death rate, by means within our reach, in the last decade, has been limited over 40 per cent. Apply this to our home list, and it means 120,000 lives saved. More than this, each case means two years of suffering and despondency and danger to others. That gives us 240,000 years of this kind replaced by healthy bread-winning, wage-earning years. It means that 120,000 foci of disease will be prevented, and that not only these will be saved, but those whom they might infect will be protected. It *is* a startling proposition, but it is so true that not one of us can ignore it.

In discussing this question it is usual to present some of the many phases of tuberculosis or its limitations. May I depart from this custom and first speak of what is most important, of that upon which all victory depends—the physician himself? Pardon me if, impressed with the responsibility of the time and audience, I speak plainly, without let or hindrance from conventionality or mistaken kindness. There is no unkindness in plain dealing with honest purpose. Two demands will constantly present themselves to the physician, one originating in his own needs, the other in his patients.

Something demanded in himself. We are not as yet masters of the situation, but we must each one grasp the situation with a master hand. Our years of practical training and of knowledge of local conditions are most valuable. There must be *a recognition of the danger*. One case of smallpox in your town will call for action, two will make you very anxious and half a dozen will cause you to summon every resource, therapeutic and preventative, till the disease is stamped out. If we had the same sense of responsibility about tuberculosis—another parasitic, communicable and more insidious disease, there would be little tuberculosis.

Intelligent study of effective means of limitation is necessary. Fortunately one does not have to be an expert bacteriologist or pathologist to be an efficient worker here. Our expert

delvers in the laboratory have given us certain definite truths touching the spread and limitation of tuberculosis, and it is ours to make these truths effective. This, I believe, is the key note in the trumpet call now heard throughout the land. It is not so much cure as it is prevention. I would not decry all efforts made to cure the individual, but if we would stamp out the disease it must be by prevention. We will come to this presently.

Early diagnosis must be the constant rule. Here is where many of us fail. A cough is treated lightly; loss of flesh is "run down;" fever may be "malarial;" and valuable time is lost where five minutes with the stethoscope and a sputum examination might at the first anticipate grave disease and progressive destruction. It is not for me here to instruct in the methods of physical examination, but I fear not to say that few use their whole knowledge in such investigation. In every suggestive case the evidence should be as thoroughly searched as though the physician were an investigator of titles. Not a fault or a flaw should be overlooked, for even at the best we make mistakes, but the greatest of all mistakes in these cases is carelessness or procrastination.

Watchfulness. Another need is that the physician should be ever on his guard. It is not true that tuberculosis is a disease of regular trend, and that it is needless to keep close watch. As well might the fire chief be content to turn on the hose and come back the next day to see results. He will find a ruin, as we will find if we neglect the indications in this greater consuming. I would here add another need, that of *truthfulness.* Too often we hesitate to state that which we know. It is a mistaken idea that the truth is a handicap to the patient. I have never yet seen it do harm, even when the telling carried little of hope. I would rather have my patient an ally than to keep him in the dark, with the possibility each day that he discovers my insincerity.

But these thoughts suggest the picture from another standpoint—that particular point of view where the patient is in the foreground. *Much is demanded by the patient.* This demand may not be voiced in words. It is often the mute appeal that weakness makes to strength, and it is an appeal that must be answered.

In general there is work for the family physician even before there is positive evidence of individual disease. I believe in a pre-tubercular stage, a stage of inherited tendency, of diminished function, of local lesion, even before there is specified invasion. So also I believe in pre-tubercular treatment, in a recognition of inherited tendencies, not inherited tuberculosis. One of the best efforts that the family physician can put forth is the *antagonism of predisposition to disease and faulty development.* Instructing a child in deep breathing, correction of faulty function in assimilation, or wrong physical posture. These may be little things, but they mark the turning point in that child's career, so far as resistance to disease is concerned.

Hygiene in the home or school or workshop is to be insisted upon, and who has a better right and is better fitted for this duty than the general

practitioner? May I particularize here? One of the curses of civilization is vitiated air. Air that has been in another man's lung and is loaded with his refuse is not fit for you to breathe. How soon the air in the sleeping room or church or factory will be once used by the occupants is only a matter of mathematical calculation. After that it is second hand and dirty and dangerous. I would place fresh air as the first necessity for healthy function, before food, sleep, drink or anything else. You eat three times a day, drink twice as often and sleep once a day, but you breathe eighteen times a minute, and if your breathing is stopped five minutes you die. Our people are learning this lesson. Consumptives are sleeping out of doors, families are throwing their windows open, and now and then a car has a ventilator open. Windows may be open without fear of danger from draught if a board is placed on edge inside the frame, resting on the sill; a door may be guarded with a safety chain and left partly open at night without danger. Schoolrooms should be visited by the physician, insisting on better ventilation than is usually found. I know of no more potent factor for physical harm than the crowded, overheated modern schoolroom, where, condemned to hours of inhalation of foul air, the growing child is expected to grind out his allotted task regardless of all hygienic and physical surroundings.

Another general rule that the physician should insist upon and pardon me if I say illustrate, is the *care of the sputum*. People should be taught that careless spitting is dangerous. We recognize in it the chief factor in the transmission of tuberculosis and we do not know what man may have tubercular foci. I need not here go over the argument. We should urge that if people must spit, that they should spit in a cuspidore, containing some efficient disinfectant or germicide, and that it should never become dry. The consumptive should have a covered cup or equally safe device. There are many of these from the hygienic box to the simple covered cup. These should never be left open, for it is proven that flies may carry the bacilli. A valued friend of mine who has many patients who burn wood, uses a cigar box filled with wood ashes for a sputum cup, when the cover is down it is not unsightly or suggestive and the ashes are changed night and morning. If once the principle is taught, the exact method is but a matter of detail.

I believe it is quite within the physician's province to *instruct in matters of food and clothing*, not only for the sick but for those whom he should guard against sickness. It is not that our people do not eat enough or that the food is not costly enough, but that it is too often illy prepared and poorly cooked, and alas too rapidly eaten. If the demijohn and cigarette have a rival it is the deadly modern frying pan. The same thought applies to much of the clothing that is misapplied now-a-days. Note the thin shoes and thin hose topped by dragging heavy skirt and over the over-burdened chest the vile so-called chest protector and repeated thicknesses of heavy unsanitary garments, unsanitary and harmful to the last degree. Teach such women the

luxury of good honest foot wear, of well-distributed clothing, of chest freedom and protection of the extremities and it will be better than many bottles of alteratives and expectorants.

In the individual there is a demand for all that has been said and much in addition. When once a diagnosis of tuberculosis has been made there should be a *careful inventory of the patient's vitality and functions.* To bring about normal conditions is the problem and it is necessary to know how much is abnormal and lacking. Before we can proceed to build up we must know how much of what remains is available and how much debris. *Each case must be individualized.* There is no hard and fast rule for the care of tubercular cases. Not even is the amount of local lesion a guide for treatment, for it sometimes happens that patients with slight areas of infection have the least recuperative ability and conversely. In matters of food, medication, exercise and even physical influence the personal equasion must be considered.

The general indications, those that may be found in any case must always receive attention. The first and most important thing is to *restore assimilation.* If we could once the diagnosis has been established, forget much of the treatment of symptoms and begin the battle by establishing a valuable source of supply of nutrition and strength we might have more victories. I do not mean over-feeding, nor do I mean saturating the alimentary tract with creosote and its substitutes. Better far is it to clear out the lower bowel with an occasional enema I have elsewhere spoken of the value of the normal salt enema, which I believe of value. If there is a tendency to incomplete emptying an occassional saline will do no harm. There is no use of a adding fuel to a grate full of cinders. The food should be well selected for the individual case. Much sameness should be avoided, but good meat not overdone, milk and eggs are standard. Have the patient eat slowly and masticate well. Where gastric function is impaired, little water should be taken with the meal, and the milk should be sipped slowly. Frequent feeding rather than over feeding is generally best. In addition to proper diet some gain in nutrition may be made by daily inunctions with coca butter. The massage if not too forcible is often valuable. The dietetics and hygiene of tuberculosis are so important that I regret I can but mention them here.

The *conserving and increasing of strength* is a matter of discussion. As a rule I do not believe in much exercise for the consumptive. He should not overdraw his bank account of vitality. To stop when tired is the golden rule in such cases. Often deep breathing and a little gentle chest exercise is the limit. What causes too rapid heart action, too frequent respiration or exhausts the patient in any is harmful.

Specific Medication.—There is no antidote to tuberculosis as yet found. After a somewhat long and varied experience with the *serum* of different laboratories and with tuberculin in its varied forms I have reached the conclusion from the history of my own cases that however helpful this line of treatment may be from a physical point of view, there is little sub-

stantial to warrant confidence in it. I believe all experiment in this direction is valuable and promises much. So far the promise has not been made good, yet I believe that we are nearer its realization than ever.

Special therepeautics in tuberculosis is a subject not to be neglected. While I do not believe in much medication, there are urgent and important conditions that must be met quickly and effectively. One of these is *hemorrhage*. Sometimes hemorrhage from the lung, if it be slight, seems to give temporary relief, but this is not the rule. Almost instinctievly we seek to stop it, and it is an urgent symptom for which we have no adequate medicinal remedy. I have lost faith in all drugs from common salt to ergot, and in our work at Mount St. Rose we have had ample opportunity for watching their effect. The condition to be desired in hemoptysis is rest, mental and physical rest. Hypothetical propositions founded on theories of contracting small vessels or dilating larger ones, or of slowing or redueing heart action do not work out. Hemorrhage may cease after such treatment, but not on account of it. Better far than drugs is compression, putting the lung in a splint. A good sized towel should be rolled into a cylinder six or seven inches long and as thick as the wrist. Let this be applied over the lobe of the lung from which the hemorrhage comes, and a wide bandage over it tightly drawn and pinned in place. If this is properly placed it is more effective than drugs. At the same time a little opium may be given to relieve restlessness. The patient should remain in bed in an easy, comfortable position till all danger of immediate recurrence has passed.

Cough is one of the most troublesome complications. Except in the last stages it is not well to give opiates, and unfortunately there is no sedative that is effective and harmless. The old-fashioned chloral and bromide mixture is valuable at night, and if the cough is from bronchial irritation, iodide of potassium, with or without muriate of ammonia in solution, sometimes does well. It should be remembered that oftentimes the cough is due to laryngeal or pharyngeal irritation. In such cases a sedative spray, an astringent application or the inhalation of a little of the old "A. C. E." mixture will sometimes help. Patients should be taught how to cough, or rather how to expel the sputum. The loud, harsh, distressing cough is generally unnecessary and harmful. Let the patient inspire slowly till he gets the largest amount of air below the irritating accumulation, then a forced expulsion will often expel the sputum and give relief.

Fever is one of the most obstinate complications. Resulting from double infection, it does not yield to the antipiretics of the pharmacopia, nor has the antistrepticoccus serum been a success in our hands. Rest in bed and sponging with cool water helps, and the repeated eyemata before referred to are aids.

Night sweats are often troublesome. The control is largely a matter of individual experimentation. We have not found any of the vaunted remedies worth much. Due as a rule to the relaxation of the vaso-motor filaments, after a sound sleep, atropia is valu-

able, but a little strategy is sometimes effective. If the sweat comes on regularly, let the patient be wakened by an attendant or an alarm clock half an hour previous and be given an ounce or more of good whiskey. Sometimes the wakening alone is sufficient, but a stimulant at the time is generally indicated. Care should be taken that the patient does not sleep under too heavy covering or in a poorly ventilated room.

Climate.—Fortunately for the consumptive the cry of "change of climate" is dying out. The discomforts and dangers of so-called resorts for tuberculosis are being exchanged for the comforts and healthful surroundings of the modern home life under hygienic conditions. It is fast becoming a trueism that the consumptive must get well in the climate in which he expects to live, and that he can get well in any climate is a proven fact. One word as to our own state. It has been the habit to disloyally decry our home climate, when there probably is no climate in christendom that has a better average of good and healthful days. More than this, the number of deaths per thousand from tuberculosis in Missouri is somewhat less than the average rate in the United States. If a patient is sent away let there be some definite, positive reason for his going, pertinent to his case. By all means forbid patients far advanced, or febrile cases, or cases dependent upon home and home society, to seek betterment in some far off vaunted utopia where the allurements are seductive but false. The home climate is the best climate for the consumptive, and the ordinary variations in heat and humidity are of little if any importance. As a proof of this the very best results are being obtained in Boston, New York and Philadelphia, where the theremometoric and barometric changes are greater than ours.

Organization.—As before mentioned it is by prevention that the disease must be met. Our great hospitals and sanatoria are not more useful for the care of the sick than for the education of the well. The limitation is largely a matter of enlightenment. "Doctor" means "teacher," and here again the general practitioner finds a field of profitable work. There should be a leader in each town in Missouri who will gather around him a few intelligent citizens, tell them the a b c of the danger and the methods of prevention and put practical ideas into working shape. The work in large cities is a little different but may serve as an illustration. In St. Louis, for instance, we have an association which is in touch with all the great charity organizations and is an integral part of the Civic League. Its work so far has been the advocacy of bills enabling the health department to register cases, inspect premises, and disinfect apartments. It has also issued and distributed 250,000 leaflets and cards for the street cars, factories and dispensaries. It has a staff of lecturers ready to answer calls for instruction from different societies, lodges and associations. A corps of inspectors from the different charity organizations will co-operate with our committee on inspection. Another feature of our work is to teach people the value of fresh air and well ventilated sleeping and work rooms. One consequence of this

thought being constantly repeated is that our street cars now have ventilators that ventilate, and the spitting crime is being rapidly lessened.

No appeal is complete without an application. What is our personal obligation and our personal responsibility in this matter? There is not a physician in this room who is not an important factor in this fight. Make it your fight. We will all have to be more out-spoken than heretofore. It is hard sometimes. Not long ago it was my painful duty to reprove a physician who wore the badge of the American Medical Association for copious and disgusting spitting in the great Philadelphia station, although a police warning was hanging over his head. Fortunately such cases are rare. We should first of all be examples in all that pertains to the laws of limitation, then we are ready to advocate organization. I would suggest, as the profession is being so efficiently organized in our state, that each county society have a special committee on tuberculosis, that the committee urge upon the members to send statistics of number, stage and general surroundings of the cases of tuberculosis known to them, and that the aggregated reports be sent to a committee designated by the State Association. I would further suggest that leaflets bearing upon this subject be distributed through these local committees in a way most suitable. The National Association will be glad to be consulted with regard to such literature, or our St. Louis society will furnish samples of the cards and leaflets most practical. In St. Louis we owe much to the daily press, the editors of our dailies being a large part of our Committee on Publicity. So in each town the local press will aid in diffusing the literature approved by the local committee. Lectures can also be arranged for and in a dozen different ways the educational feature of the crusade be advanced.

A Word of Caution.—There is danger that in the war against tuberculosis the public may become too zealous, and great wrong be done the unfortunate sick. The victim of tuberculosis is not a criminal, nor is he indeed a very dangerous member of society, provided proper care be taken to prevent his communicating the disease. There is no need that he be ostracised. The best place for the majority of cases is home, or the home-like sanatorium, and in the effort to protect the home the consumptive need not be rendered homeless nor a mark be put upon him as a modern Cain, ignoring responsibility as his brothers keeper. With a better knowledge of the principle of limitation the consumptive in the early stages does not endanger others in the home, the workshop or the store, and in the latter stages he can be cared for without danger to the attendants.

My final word is one of congratulation. The recent appropriation for a State Sanatorium is an evidence of the intelligent interest taken by our representatives. The secretary of the American Medical Association a few evenings ago publicly made a flattering reference to the work done in Missouri as compared with that of other states. With the judicious expenditure of the $50,000 given by the

last legislature more will be forthcoming, and what is of more value educational results will be obtained that will be effective in every home. It is this thought that should be uppermost. Almost the last public words of Dr. Hodgen were "more light." It is this that makes all legislative, all sanatorium study most valuable. If there is one thing that has made the work at Mount St. Rose effective, it has not been so much the care of the 500 patients committed to its care, but the opportunity given to teach the patients and the friends of the patients methods for limitation and prevention of consumption.

The problem is being solved and its answer means the saving of 120,000 citizens to Missouri. The key to the problem is organization and education.

3886 Washington ave.

DISCUSSION.

Dr. J. R. Lemen, St. Louis: I enjoyed Dr. Porter's paper very much. There is one thing that possibly we may lay too much stress upon, or, perhaps, I should put it this way: That it is a fact that in many cases which you and I and every other physician sees we may wait for a microscopic examination before pronouncing it tuberculosis. I don't wish to decry the microscope, but I want you to think of the microscope when it shows the germs as being confirmatory evidence of other symptoms and signs we have found before. The patients come to us frequently in the early stages, before they are expectorating bacilli, and they will merely say that they have a cough, and have been losing flesh, and that they don't feel up to par. Examine that patient closely; have the temperature taken three times a day, at 8 A. M. at 1 and at 6 P. M., and you will find there is a rise in the temperature of a half degree to a degree and a half. You may not call it fever but it is a rise in temperature. The books speak of afebrile cases of tuberculosis. I never saw one, and don't believe any one in this room ever saw a case of afebrile tuberculosis. When the patient is losing flesh, and coughs, and has an elevation of temperature, don't wait for the evidence of the microscope before you begin your treatment.

Dr. J. D. Brummall, Salisbury: As to early diagnosis, I have observed the fact that rapid pulse is one of the earliest symptoms. A little tincture of strophanthus does much to relieve the patients and aid them in getting well.

Dr. J. A. Larrabee, Barnard: One of the things I have been instructed to do was to tell the truth, but the paper don't tell us just what to tell these patients. Suppose you tell them: You have tuberculosis; you must eat good beefsteak; eat eggs, and breathe fresh air. What will be the result? I have no statistics as to just what they will do. I never went quite that far with but one patient, who went to another physician, who made $100 before that patient died. I do believe that our effort should be to assist the patient in his fight against the disease. I believe there are supporting measures, and I believe the doctors from the city should tell us what they do as well as what should not be done.

Dr. Porter, in closing: Some points in the paper, I think, have been mis-

understood. I do not for a moment believe that the diagnosis should be based only on the microscopic findings. I saw recently, with Surgeon Major Bannister, of the army, a man dying of tuberculosis, although no one had ever been able to find the bacillus in his sputum. Dr. Moore certainly did not mean to cast any reflection on the importance of the necessity for some means of preventing the danger of the dissemination of the sputum. It should not be allowed to fall on the carpet or sidewalk or any other place where it cannot be destroyed. At Mount St. Rose it is expulsion for a patient to spit elsewhere than in the cuspidor. It is your duty to take up this work of limitation in your own homes. In your hamlet or town see that you become the leaders. With the encouragement that has come to us from the large cities in the east the work need not be so hard. "What shall we tell the patient?" It reminds me of the reply of a certain Democratic leader who was asked, with reference to certain facts in his history, "What shall we tell the people?" He replied: "Tell them the truth." Be frank with your patient, and you will keep that patient and his confidence, and you will have the inward satisfaction of knowing you have been honest in your dealings with him.

RECENT ADVANCES IN THE ETIOLOGY AND TREATMENT OF HAY-FEVER.

By Hanau W. Loeb, M. D., St. Louis, Mo.

For almost a hundred years, since Bostock called attention to the disease which is now known as hay-fever, its etiology has been the subject of much discussion. For the greater portion of this time it has been a discussion of theories rather than of experiments. More lately, since the intelligent observation of cases has been counted of more value than the spinning of hypotheses, a clearer view has become possible. Among the many agents which have been suggested as possessing a causal influence upon hay-fever the following may be mentioned:

Heat.—Bostock and Phoebus held the heat of summer responsible for the disease.

Bacteria.—Helmholtz was among the first to ascribe to bacteria this role in hay-fever, a view which has been more or less held up to the present, but without proof. For instance, Heymann and Matzuchita, thinking perhaps that pollen furnished the means of bacterial invasion, made investigation along this line which convinced them that this could not be true. (*Zeit. fuer Hyg.*, Vol. 38, p. 495.)

Weil found in twenty-six cases a coccus which was not found in eleven controls (not affected by hay-fever), and not found in the bacterial flora of the nose. It resembled the micrococcus liquefaciens conjunctivæ, and was not pathogenic for mice and guinea pigs. However, this coccus did not produce hay-fever in the predisposed individual. Weil's answer to this was that pollen could likewise

not cause hay-fever in such an individual.

Axillos found in thirty-five asthmatics a micrococcus on the mucosa which he could demonstrate in patients, and which he considered as operating by means of the toxins on the sensory nerves.

Many others have pursued investigations along these lines, feeling sure that bacteria had an important bearing upon the etiology of hay-fever. The periodicity and the widespread invasion of certain communities naturally directed observers toward bacteria, wherefore many painstaking bacteriologic studies have been without result.

Pollen.—For many years, since Elliotson first showed by experiments that emanations from grasses and hay could produce the disease, and particularly since Blackley substantiated the influence of plant pollen in the etiology of this disease, the pollen of certain plants has been ascribed as the cause. In 1898 Blackley showed that the pollen grains of seventy-six different plants could cause hay-fever. Mackenzie, on the other hand, maintained that the great interference in the way of a proper understanding of hay-fever was this very pollen theory.

Thost believed that the action of pollen is either mechanical or chemical, and that the odorous particles, and not micro-organisms, were the cause. He examined 350 patients and found that vegetation, local disposition seated in the mucosa of the upper respiratory tract, and an idiosyncrasy played an important part in the etiology of the affection.

Luhe held that, under the influence of nasal secretions, the pollen covering was so modified that the special ethereal oil of the plant was set free, and this Fink thought operated on the trigeminus.

Although these and other observers conducted extensive observations upon the relation of pollen to hay fever, Dunbar was the first to undertake a logical investigation of its etiology from the standpoint of proper experiment. He undertook to produce hay fever in susceptible individuals at a time when the disease was not prevalent. By the use of certain pollen grains he succeeded in producing hay fever in these individuals, demonstrating a causal relation between these pollen grains and hay fever. His control experiments showed that the pollen was without effect on a non-susceptible individual during the hay fever season or during the intervals. After showing the influence of pollen upon this experimental hay fever, he next undertook to determine what part of the pollen was responsible for the disease. After a series of very interesting experiments, based upon chemical and physiologic grounds, he succeeded in extracting a substance from the pollen grains which had the same effect as the pollen in producing hay fever in susceptible individuals during the usual intervals of the attack. In this way, by successive experiments and logical deductions, he established that the specific cause of hay fever is the toxin or toxalbumin which is found in the pollen grains of certain plants.

There is a marked difference between the German hay fever, which usually appears in May or June, and the American hay fever, which attacks

its victims about August 10th. Dunbar finds that in the former case the condition results from the pollen of the grass family, particularly rye, while the American hay fever is due to the pollen of the rag-weed and goldenrod in the main. These experiments and deductions are rendered all the more conclusive when considered in the light of the annual hay-fever attacks. In Germany the grasses are in flower just as the so-called *Rosenfieber* or German hay fever appears, while in America the flowering of the goldenrod and rag-weed is the signal for the appearance of hay-fever paroxysms throughout their habitat.

Dunbar also established that when a susceptible individual approached a field where these toxic pollen grasses were abundant, hay-fever paroxysms invariably resulted, and that during the season the paroxysms were heightened in this way.

Quite extensive investigations have been made to determine the toxicity of these pollen grains in so far as susceptible individuals are concerned, and a large number of plants have been given their proper position in this regard. There seems to be no relation between the poisonous qualities of certain well-known plants and their influence on hay-fever, while certain grasses are innocuous in other respects, even if they do produce a form of hay-fever. Thus, for instance, the hemlock, mockorange, poppy, aconite and digitalis plants and common nettle have all been found non-toxic for hay-fever, while in addition to the grasses, the aster, chrysanthemum, daisy, lily-of-the-valley and spinach have been found toxic.

Having established the cause of hay-fever, Dunbar proceeded to seek for the remedy. The resemblance of the pollen toxin to the bacterial toxin led him to attempt to secure an antitoxin by immunization. After much painstaking effort and many disappointments he finally succeeded in obtaining an antitoxin which fulfilled the conditions desired in experimental hay-fever; in other words, the use of the antitoxin simultaneously with the toxin in susceptible individuals was without reaction, while the controls reacted as usual. The antitoxin would cut short an attack of hay-fever which had been artificially produced.

When these experiments were subjected to the clinical test the results were altogether confirmatory. This does not signify that every case of hay-fever can be cured with the antitoxin whether used in a proper or improper way, any more than that the diphtheria toxin is effective under any and all circumstances.

In the writer's hands it has been found subject to the same diversity of conditions that other remedies manifest whether specific or not. While practically every case was improved, the benefit was only in proportion to its intelligent use. Cases must be considered from their individual characteristics, the dosage must be determined for each individual, the habits of the patient taken into account, abnormalities of the nose considered and the patient brought into proper conditions of life. In our June fever, which is a form of hay-fever akin to the German hay-fever, the remedy is startlingly effective, while in the American hay-fever it is less markedly so, and the serum

prepared by immunization against goldenrod and rag-weed pollen toxin is more satisfactory. These facts have been elicited by observation of a number of cases. In one case, that of a woman affected for a year and a half with rose-fever almost uninterruptedly from the time she was first affected in May, 1902, the relief was almost immediate. She has spells of sneezing, even asthma from time to time, but only when she was affected by an acute coryza which called for the usual treatment of the acute coryza. This led me to suggest that we must recognize that hay-fever patients may be subject to any of the nasal affections and that such patients will be very prone to symptoms such as we find in hay-fever, sneezing, obstruction and discharge. Whereas it is nearly certain that such symptoms, resulting from hay-fever poison, may be relieved, it is likewise true that, where they result from some other cause, no amelioration can be expected by the hay-fever serum.

Another case of rose-fever, affected for three months, consulted me on August 2, 1904. I found that there was present hypertrophic rhinitis with large posterior hypertrophies and I advised the use of the hay-fever serum, and stated to the patient that after the hay-fever season I would operate on the hypertrophies. In two days the relief was so great that I was prevailed upon to operate, in spite of the fact that at that time we were in the midst of the hay-fever season. Up to the present time she has had no further evidence of the hay-fever.

I found that most patients were prone to use too large an amount at each dose. A smaller quantity is more effective and less irritating. Some patients feeling secure in having a remedy undertook certain pursuits which increased the hay-fever, such as riding in railway trains with the windows open, playing golf, going to country districts where the goldenrod and rag-weed were more abundant than where they had been. Finding the hay-fever serum not altogether effective under these conditions, they discontinued it. However, when they were directed to refrain from such pursuits and the serum antitoxin given to them in a proper way, the relief was complete.

In all cases it is necessary to consider the local status of the nose. Spurs, ridges, polypi and hypertrophies must be removed, deflections corrected and the nose made as nearly normal as possible. It is only by doing this, that we can hope to make efficient application of the remedy under the most favorable conditions and thereby achieve the best results.

REPORT ON MEDICAL EDUCATION*.

By C. M. Jackson, M. D., Columbia, Missouri.

Although there are many important questions concerning medical education which might profitably be discussed at this time, it was thought best to limit the report to a single phase of the problem. The question presented for your consideration today is that of electives in the medical curriculum.

This is a comparatively new idea in medical education, but it is a question of fundamental importance. We shall have to consider first whether it is practicable to admit electives into the medical curriculum, and, second, whether electives are desirable in medical education.

In the first place we have to consider whether it is possible to find room for electives. Is not the curriculum now overcrowded? Let us see. It is already impossible to require the medical student to learn *everything* of importance in medicine. He cannot do that in four years, nor in ten years, nor even in a lifetime. It is, therefore, manifestly necessary that out of the vast stock of knowledge included under the various medical sciences a selection must be made of those portions considered most useful as a foundation, preparatory to the practice of medicine.

But what is the best selection? That medical faculties are unable to agree upon this point is very evident when one compares the courses of study in the various medical schools in the country. All will agree that a thorough laboratory training in the fundamental sciences, anatomy, physiology and pathology, is indispensable. All will likewise agree that a thorough knowledge, both theoretical and practical, of medicine, surgery and various other clinical subjects must be required. But the amount of time which should be devoted to each of these subjects, and the number of special subjects which should be included, are questions still open for discussion.

If, therefore, it is thought desirable to make room for electives, it would seem possible to do so. A large proportion of the time available must necessarily of course be restricted to required work in specified subjects, both general and special, but a small portion of the time might be reserved for electives to be chosen by the student under certain restrictions. This plan has already been adopted in several medical schools in this country, and so far as I know has worked very well. If the time now required for the medical course should prove insufficient to allow the elective system to be properly carried out, more time could be provided in various ways—*e. g.*, more work could be required for entrance, the term increased in length, or even if necessary, the course increased from four to five years. We may conclude, therefore, that the principle of electives is *practicable*, and proceed to consider whether it is *desirable*.

The great argument in favor of the principle of electives in medical education is that it replaces the time-

* Read at the forty-eighth annual meeting of the Missouri State Medical Association, Excelsior Springs, May, 1905.

honored rigid curriculum with a course of study which may be modified to suit the varying needs of individual cases. As an extreme instance of what might possibly be accomplished by an extension of this principle, I will mention the establishment of dentistry as (what it rightly should be) a special branch of the medical profession. Nobody, and least of all the dentists, would deny that a knowledge of the general principles of medicine and surgery would be a great advantage to the practitioner of dentistry. On the other hand, the dentist might properly object to spending much time on special subjects, such as ophthalmology or dermatology, which would be of no direct benefit to him in practice.

Why not recognize this principle, require of the dental student (aside from the necessary preliminary medical sciences) only a minimum of required work in medicine and surgery, allow him to take *as electives* the special work now required in dentistry, and at the end of four years give him his M. D. in dentistry? It seems to me unquestionable that some such plan would elevate the dental profession and be a source of additional strength to the medical profession.

But if the principle of electives be conceded as useful in the case of dentists, it is hard to see why the same principle should not apply to other special lines of medical practice. We are tending more and more to specialization in medicine. This tendency is an unavoidable result of the present rapid progress in all branches of medical science. Day by day it becomes increasingly difficult for the general practitioner to keep abreast of the times in all lines of practice. It is not likely that the general practitioner will ever be driven from the profession, but it does seem inevitable that his field will continue to become narrower, and that of the specialist will become correspondingly wider. Whether we like it or not, this is a tendency we all must admit. It is the great economic law of the division of labor working irresistably in the field of medicine.

I would not be misunderstood as wishing to educate all medical students as specialists, however. And in any event the education of the specialist will necessarily be almost entirely a matter of postgraduate work. But the elective system is equally valuable for the student who desires to become a general practitioner. From the report of the National Confederation of Medical Examining and Licensing Boards (*Journal A. M. A.*, August 15, 1903), it appears that in forty-three of the leading medical colleges in the United States an average of about two-thirds of the time required for clinical subjects is devoted to the general branches (medicine, surgery, obstetrics), and nearly one-third to the remaining more specialized branches. If, instead of a rigidly required course, we should, for example, specify required work in the general clinical subjects to the extent of three-fifths of the time available, and in the various special subjects for one-fifth, there would still remain one-fifth of the time, which might be elected according to the varying needs of the individual student. The prospective specialist might apply it to advantage by spending more time in the specialties of his

choice; the prospective general practitioner would be free to spend it in more general work, if he so desired. An elastic system is therefore better for all students, since it allows a modification of the course to suit the varying individual needs.

If we admit this principle, even to a limited extent, it follows that a certain amount of electives, especially in the latter part of the medical course, is desirable. Under this system, besides the more general courses, each chair in the medical school should offer additional more specialized courses as electives to those who wish to devote more time to these particular subjects. Having completed the minimum amount of required work in the various branches, both general and special, the student could then devote the remainder of his time to that line or those lines in which he wished to become especially proficient.

The principle of electives has, of course, its limitations, but I believe that with proper restrictions it will prove to be a step forward in medical education.

But aside from the possibilities of electives for the purposes already indicated, there is another use to which they may be put, viz., to provide opportunity for research work by the student. Now I must state at the outset that I am an enthusiastic advocate of research work in medical education. I am, of course, aware that there has been, and still exists, a wide-spread tendency to decry research work as of little practical value. But this tendency is, I believe, largely due to a misunderstanding of the true aims, methods and results of legitimate research work. When these are fairly understood, I am confident that the medical profession will commend this policy without hesitation. Many of you doubtless understand the term research work to mean the working out and publication, at a great expense of time and money, of some obscure point of no practical value. This is most emphatically *not* the kind of research work that I advocate. You will pardon me, therefore, if I take time to explain my position on this subject in some detail.

Medical science, in a wide sense, is that subdivision of biological science which deals with the human organism in health and disease. A knowledge of what may be termed "medical" phenomena (like that of science in general) may be gained in various ways, which may be conveniently classified under three methods; the objective, the literary and the didactic methods. Briefly expressed, by the objective method is meant the gaining of knowledge by direct observation of the phenomena concerned; by the literary method is meant the study of the phenomena at second hand through observations made by others, and recorded as such in the medical literature; and, finally, by the didactic method, the facts are learned through the teacher or textbook (representing a systematic compilation of facts, usually at third hand.)

While all these methods have their place and value in medical education, the tendency in recent times is to emphasize more and more the first or objective method as of foremost and fundamental importance. The immense improvement in laboratories and clinics is a direct outgrowth of

this idea. The underlying principle is that in order to get a firm foundation, it is necessary for the student to get back to nature and *learn the facts for himself at first hand.*

These principles are so well established, and have been reiterated so often, that they seem self-evident. The fact that I wish to point out in this connection, however, is that *these methods and their applications are identical in principle with those used in original investigation or research work.* Every scientific investigator in fact, uses all three methods mentioned, and in much the same way as should the medical student. The investigator, as a rule, has derived his general ideas from teachers and text-books. Next he consults the literature containing the records of observations made by previous investigators upon a given topic. Finally the most essential part of his work consists in going back directly to the phenomena themselves, studying and testing them in various ways, and drawing his own conclusions. Now if this sort of work is sufficiently extensive and formal, and if the results are sufficiently valuable to warrant the expense of publication, we dignify it with the title of research work.

But does this research work differ essentially (except in degree) from the kind of work that every medical student should be doing all the time? It can hardly be said that it does? I will even go farther and say that every successful practitioner, whether he realizes it or not, is and must be an original investigator. Every case he meets is essentially a research problem. And the more carefully, thoroughly and systematically the practitioner applies the methods of scientific research to his practice, the more successful will be his results. Research work is, therefore, doubly advantageous to the medical student, since he thereby not only gains his foundation knowledge in the best possible way, but also gets a training in methods which are of direct practical benefit in his subsequent professional practice.

What might be called the research idea, therefore, is already recognized (though not under that name) as a fundamental principle in modern medical education, and the best laboratory and clinical instruction is (consciously or unconsciously) planned in accordance. A formal recognition of this idea, however, would help to clear the air of much misapprehension concerning the nature of research work, and its practical bearings and relation to medical teaching and practice.

Aside from the research spirit which should pervade the ordinary class work of the medical student, however, the question naturally arises as to whether it is possible to extend the idea by providing for individual research work in the medical curriculum. This can be easily done under the elective system in the following manner: In connection with each chair in the medical school, besides the usual didactic, clinical or laboratory courses, a research course should be offered as an elective open to students who have taken sufficient preliminary work in that line. The nature of that work would naturally vary according to the talent and inclinations of the individual student and teacher, the materials available, etc. It might be

advisable to *require* each student to do something along this line, and to write up his work in the form of a graduation thesis (such as is now required in European schools.)

The work should be planned, however, not primarily for purposes of publication, but for the *training of the student in research methods.* Introductory research work of this kind would necessarily be simple in character, perhaps merely the verification of some work already published. It is the *method*, not the materials or the results, that is of primary importance at this time.

The emphasis placed upon the method as the most important thing to be considered in research work by the undergraduate student, however, should not preclude the encouragement of more formal research work, the results of which are worthy of publication. Considering that the vast body of knowledge handed down to us from former generations is a small matter compared with what still remains to be discovered, we should certainly be unworthy if we wait for these discoveries to be made by chance, by individual enterprise, or by a few favored institutions. On the contrary it should be the duty of every medical college, not merely to teach what is known, but to make systematic provision for the discovery of the unkown. I believe, however, that the plan outlined above would work out to advantage in this respect also. An undergraduate medical student, it is true, will rarely be able to turn out results worth publication. But, with the proper training acquired in his undergraduate course, the post-graduate and practitioner would be able to contribute largely to the amount of productive scholarship. In the medical colleges themselves, moreover, much could be done if research work were more encouraged and the proper clinical, laboratory and library facilities were provided.

The need for abundant clinical and laboratory facilities in medical colleges is everywhere recognized, and is already met in the better class of schools. The need for library facilities, however, is not yet fully understood and appreciated, few schools being adequately equipped in this respect. Complete sets of the principal journals representing the various laboratory and clinical sciences should be accessible in every medical school. They are valuable for the ordinary class work, but indispensable for research. If library facilities were provided, and research work systematically encouraged in the medical schools, I believe that it would result in vast improvement and rapid progress from every point of view.

In conclusion, therefore, this report may be summarized as favoring the adoption of a limited elective system in medical education; first, because it would provide an opportunity for the medical student, whether a prospective specialist or general practitioner, to select a course better adapted to his individual needs, and, second, because it would give him an opportunity to familiarize himself with the practical methods of scientific research work in medicine.

A CASE OF INDIGENOUS TUBERCULAR LEPROSY.*

By Joseph Grindon, M. D., St. Louis.

Family History.—Patient's father was born in New Orleans, of German parentage, and is said to have died of consumption. Patient's mother was born in Louisville, Kentucky, and died of typhoid fever. There were seven children in the family, of whom five survive, a boy and a girl having died in infancy. The living children consist of the patient and four sisters, two older than he, and two younger. All four are said to be in excellent health. They reside in New Orleans. The oldest is married.

Anamnesis.—Patient, H. S., male, aged sixteen, was born in St. Louis, and removed to New Orleans with his parents when two years old, where he continued to live until two and a half years ago, since when he has spent his summers in St. Louis, being employed as stable-boy for a string of race-horses, and living in the winter at Dallas, Texas. Last winter he was some time at Hot Springs, Arkansas. This month (May, 1905) he returned to New Orleans, where he now is. He lived, ate and slept about the stables, occupying a bed by himself, but coming in frequent contact with the other stable-boys through the day. He has consulted physicians at various times, who called his case "eczema," "a blood-rash," etc. He was finally seen by Dr. H. M. Pierce, who referred the case to me.

I am informed that a photograph, taken four years ago, shows nothing abnormal. A few months later there appeared dryness and roughness of the palms and soles, followed by deep fissures, which often bled. Soon after the skin of the face began to thicken and grew scaly. Last January, while at Hot Springs, he suddenly grew worse, the infiltrations about the face greatly increased, and lesions appeared on the general body surface. Patient states that he has at no time had fever or incapacitating illness, but for some years has had constant nasal catarrh. Four or five years ago had pain in both ears with discharge of pus, followed by deafness. The ear symptoms have since disappeared.

Present Condition.—Patient is a blonde, a little undersized and underweight. He has had a hard life, and seems fully up to the average in intelligence. There is a badly healed fracture of the third left metacarpal bone.

One is forcibly struck at the first glance by the senile look of the face, which might pass for that of a man of sixty instead of that of a boy of sixteen. The brows, nose and lips are greatly coarsened and thickened, thus deepening the furrows and creases of the integument, and constituting a fully developed leontiasis. The characteristic thickening of the lobe of the ear and of the tragus is especially well marked on the right side. The whole face is of a yellow tint, and is slightly scaly. The hair is thin, but there are no bald spots. The eyes seem unaffected. There are no mouth or throat lesions. The voice is not raucous.

The greater part of the thorax and

* Read before the St. Louis Medical Society, June 3, 1905.

limbs is covered with dark-brown, scaly lesions, closely crowded, in places comparatively superficial and elsewhere forming large, deep, tubercular masses. At the upper extremities the involvement begins over the shoulders and extends to the wrists, except that a band of comparatively free skin begins on the inner aspect of each arm, at the axilla, whence it extends forwards and outwards to the bend of the elbow, thence down the middle line of the anterior aspect of the forearm to the wrist. The hands present some firm œdema, while the skin over the fingers is somewhat glossy and atrophied. The skin of the palms is thickened, furrowed and fissured.

The anterior surface of the trunk presents symmetrically disposed areas of brown pigmentation, passing over the pectorals from the shoulders, and becoming more diffuse over the abdomen. These fade gradually into the intervening normal skin. There is no leucoderma.

The back shows scaly areas below the scapulæ. Elsewhere extends a brown pigmentation, except that a broad, ill-defined band of nearly normal color extends down the spine.

A line at the level of the top of the sacrum and anteriorly passing downwards parallel to and a little below Poupart's ligament on each side marks the upper boundary of an area of dense infiltration, extending to the feet. The lesions form a continuous sheet, marked at points with deeper and larger masses of leproma. The surface is scaly, which feature becomes more marked as one passes downward. Over the entire surface the distribution is markedly symmetrical. There are no ulcers nor mutilations. There is massive enlargement of the saphenous lymphatic

FIG. 1.

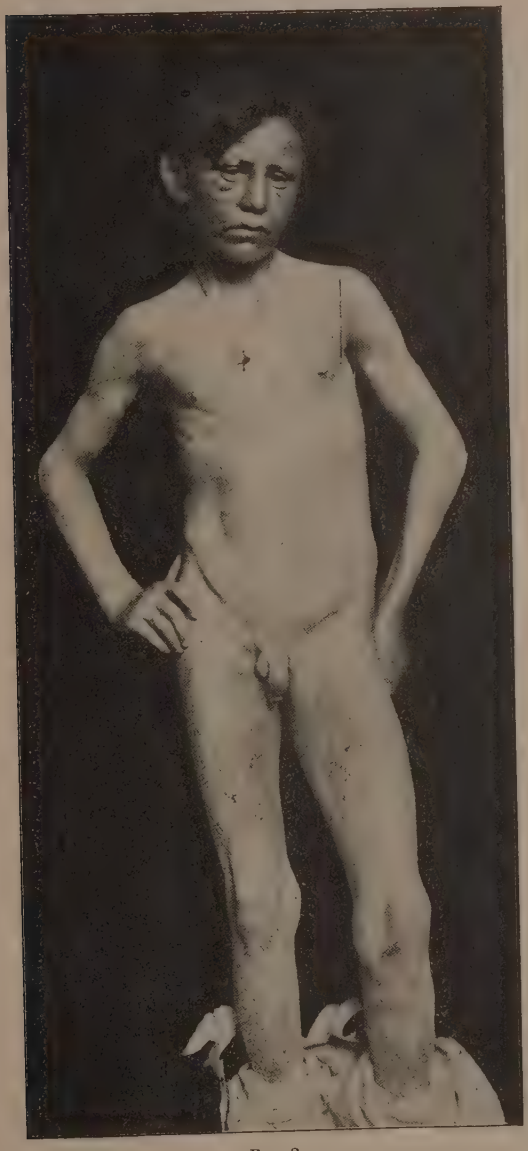

FIG. 2.

bodies. Cervical and inginual adenopathy is less marked.

Enlargement of nerve trunks cannot be made out.

There is no pain, itching nor other subjective symptom. Pain sense and tactile sense are absent over a small area over the lower fourth of the anterior surface of each forearm, extending symmetrically a little higher toward the radial than toward the ulnar border. There are small anæsthetic areas symmetrically disposed over the posterior aspects of the thighs and legs, but at these regions as everywhere else the temperature sense seems unaffected. The anæsthesia, sharply limited to small areas, seems to be rather metameric than to correspond to cutaneous nerve areas. To be exact, this case is a mixed one, but the skin lesions so greatly overshadow the nerve symptoms as to entitle it to the term tubercular leprosy.

It has been well said that most cases of leprosy are mixed, but we can often speak of them as tubercular on the one hand or anæsthetic on the other, as one type overshadows the other. I have thought it might not be amiss to say a few words about the distribution and prevalence of leprosy in the United States.

Leprosy has been known from very high antiquity. We know how common it was throughout the Middle Ages in France, Germany, Scotland and Scandinavia. In modern times, about the time syphilis began to appear in Europe, leprosy disappeared, or was supposed to have disappeared, so that in modern times it was only known to exist in Scandinavia and Iceland. There is a general impression that there has been a recrudescence of leprosy in recent times, but perhaps many cases formerly failed of being diagnosticated, so that the increase may be more apparent that real. Here in the United States it is only recently (since 1866) that we have become apprised of the fact that there are a number of cases in the country. The first in time came to New Orleans from Acadie as early as 150 years ago. Other points of invasion are on the Atlantic coast in small settlements where the disease was brought from the West Indies and perhaps by the slave ships from Africa. It also exists in Scandinavian settlements in Minnesota and Wisconsin, and recently has been discovered in North and South Dakota. There is a district in Southern Florida where it is found. A fourth source is the Chinese element in California, the fifth source is through the Hawaiians who have come to this country, and the sixth are the cases that overflow from Mexico. So on the north, south, east and west we have these leper settlements, and right in the interior of the country, the Scandinavians. The New Orleans contingent largely interests us. We all remember the beautiful story of Evangeline, and how the Acadian settlers were transported forcibly in 1758. With them they brought leprosy, and it is among them today. In their neighborhood people of other birth have developed the disease. For a time the number of these cases diminished and they seemed to assume a milder type, so that the existence of the disease in the South was for a long time forgotten. But in 1866 the attention of the medical profession was drawn to the matter and finally

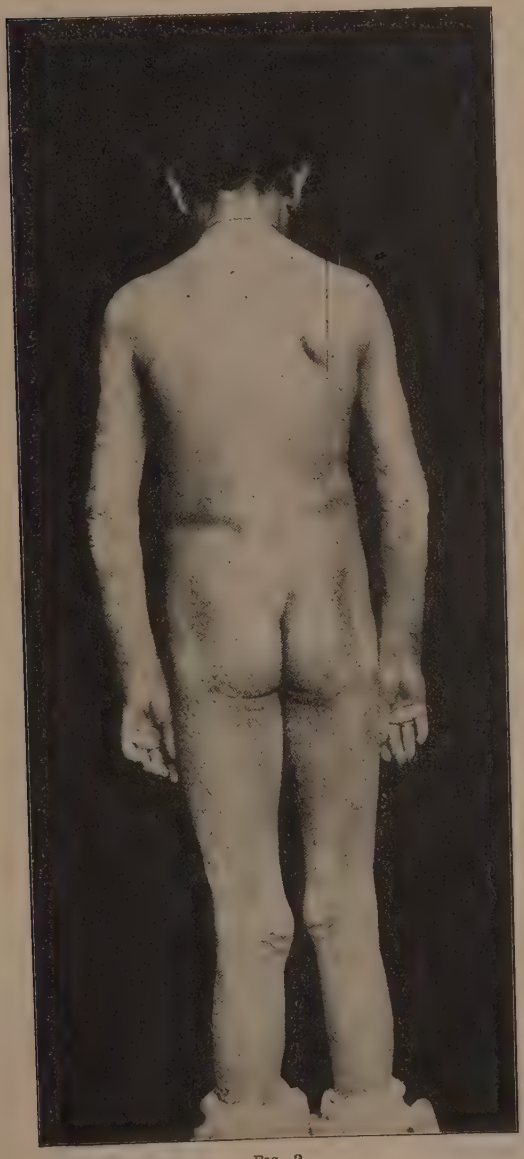

FIG. 3.

that of the State of Louisiana. A lazaretto was established in 1885. The number of cases from that time has varied. In 1902 the United States Marine Hospital Commission made a report on the subject to the Senate. In this report the cases in Louisiana are stated to be 155 and those in Florida twenty-four. Both these figures and others reported as the result of government investigation, I believe fall far below the reality. In South Carolina there has existed for many years a settlement not far from Charleston. There were formerly sixteen cases, but now only four are left alive. There have been reported from New York altogether 100 cases of leprosy. There is no settlement there, but cases turn up from time to time from all over the world. The disease has existed in the Scandinavian settlements for years. Emigrants brought the disease with them to this country. In New Scandinavia, including parts of Wisconsin and Minnesota, there are thought to be about 160 cases of Scandinavian leprosy. It was once said that no new cases developed there, but new cases have been shown. Only in 1901 a child was born in Minnesota of Scandinavian parents in whose family there was no history of leprosy, but this child developed the disease.

In San Francisco alone there are 25,000 Chinese, and amongst them are many cases of leprosy, as also elsewhere on the Pacific coast. There are in Salt Lake City a number of Hawaiians who have been proselyted by the Mormons and some have brought leprosy with them. In San Antonio there have been cases brought from Mexico. In Nova Scotia and New Brunswick there have been settlements for a long time. In British Columbia there is also a settlement. In Mexico there is but little attempt on the part of the government to control the disease. Segregation is not enforced by law and patients come and go as they like. In Cuba there is a leper hospital and the patients formerly came and went as they pleased. American intelligence, brains and foresight attacked that problem just as they did the yellow fever problem. In Porto Rico there is a good deal of leprosy. We have commercial relations with them, so that any endemic disease they harbour is of interest to us. In the Philippines there is much of leprosy and we know of its prevalence in Hawaii. At the lazaretto at Molokai there were recently 1,100 cases.

In 1892 a commission reported to the senate a total of 278 cases, which, in my private opinion, may be about one-fourth of the number of cases in the country today. I do not know that this need be a cause for great alarm. The contagiousness of leprosy is about that of tuberculosis. There are many instances of persons living in leper settlements for many years without contracting the disease. When we consider the number of cases that come into the country and the fact that most of them have died off without the disease spreading, we are led to believe that there is something in the better conditions and perhaps the higher intelligence obtaining here that militates against its increase. This, however, does not argue against our adopting all reasonable measures to check the spread of the disease. Tuberculosis we have

already with us, and we must make the best of a bad bargain; but leprosy is not yet firmly engrafted on our shores and can be exterminated by segregation.

DISCUSSION.

Dr. H. J. Scherck said that while he was an interne in the Charity Hospital, New Orleans, cases of leprosy were received as of any other disease. Later, when he became a visiting surgeon, he, together with Dr. Dyer, wrote a number of letters to the legislators and ultimately the Louisiana leper hospital was established. Dr. Scherck was appointed on the board of administrators of that hospital, and made visits weekly until he resigned. There are many more cases in Louisiana than people generally had any idea of.

There were families in which the mother or father were lepers and some of the children had remained perfectly healthy while others developed the disease. He did not believe a case was ever cured. Patients who were put on a good diet and made to eat and sleep regularly, with the use of chamoogra oil or antisyphilitic treatment, improved greatly and were sometimes apparently cured. There was no doubt that the Malay fishermen were a source of contagion. Whether their vocation or the fish industry had anything to do with it, he could not say.

SPECIMENS ILLUSTRATING THE IMPORTANCE OF CERTAIN POINTS IN THE DIAGNOSIS AND SURGICAL TREATMENT OF APPENDICITIS.*

BY JOHN YOUNG BROWN, M. D., of St. Louis.

I wish to present tonight three specimens selected from a series of cases recently operated upon. My purpose in so doing is to illustrate the importance of certain points bearing on the diagnosis and surgical treatment of this disease.

Specimen No. 1.—This specimen I removed from one of my junior assistant physicians. He gave a history of having had several attacks of appendicitis, and had suffered considerable from gastro-intestinal disturbances. I saw him two hours after the onset of the acute attack. The symptoms were pronounced and I urged immediate operation, which was consented to. The operation was set for 10 o'clock at night, and I had seen him at four in the afternoon. During my absence from the hospital he was seen by a prominent surgeon who advised delay. The symptoms grew gradually worse and on the following afternoon I removed the appendix. The specimen shows a stricture near the proximal end, a greatly dilated lumen beyond the stricture, a gangrenous mucosa and a large fecal concretion.

Specimen No. 2.—This specimen I removed from a patient admitted to the City Hospital on the fourth day of an acute attack, he having at the time of admission a pulse of 120, temperature 103.5°, and every evi-

* Presented before the St. Louis Medical Society, June 3, 1905.

dence of a spreading peritonitis. This specimen shows a perforated and gangrenous appendix, and illustrates very forcibly the condition that would have been found in specimen No. 1 had the operation been deferred twenty-four hours.

Specimen No. 3.—This specimen I removed from a patient admitted to the City Hospital the fourth day of an acute attack of appendicitis. At the time of admission he had all the symptoms of a diffuse general peritonitis. The appendix is gangrenous and perforated and it shows the third stage of this disease, namely, a perforated appendix plus diffuse general peritonitis. All three of these cases recovered.

I have for a number of years entertained very radical views relative to the treatment of this condition. I believe appendicitis is a surgical disease from its inception, and should be treated surgically as soon as the diagnosis is made. I have been able time and time again to demonstrate the inability of the surgeon by any known methods to accurately diagnose the exact pathological condition going on about the appendix without exploring the case. Diagnosis of this condition is as a rule very simple. The patient generally makes the diagnosis before the doctor arrives. I have operated on cases where the temperature and pulse were practically normal at the time of operation and have found the appendix perforated and gangrenous. I have also operated on cases in which the symptoms pointed to grave pathological changes in the appendix, and have found the trouble limited to the appendix proper without perforation. The first specimen demonstrated very forcibly this point. This young man had a temperature under 100°, a pulse of 96. Local conditions well marked. The specimen conclusively shows that had operation been deferred we would have had in twenty-four hours a perforation with an accompanying peritonitis, or just such a condition as was found in the case from which specimen No. 2 was removed. Had case No. 2 been delayed twelve hours we would have had to deal with a diffuse peritonitis as was found in case No. 3.

Regarding the surgery of these cases, I believe that the appendix should be removed in every case, regardless of the stage of involvement. After removing the source of infection, namely, the appendix, it is my rule in all cases to examine the pelvis. I have many times cleaned out the iliac fossa, removed the appendix and apparently completed the work, but the finger run over the brim of the pelvis would reveal the pelvis filled with filth. The failure to examine and properly drain the pelvis I believe has been responsible for many deaths.

In dealing with a diffuse peritonitis, the result of a perforating appendicitis, Murphy has given us many valuable points. His statistics demonstrate conclusively that we have been doing entirely too much in such cases. If there is an attempt to clean out the peritoneal cavity by irrigation, mopping and rough bowel handling, the mortality in such cases will be terrific. If we, however, remove the source of infection, put a drain in the pelvis and then place the patient in the exaggerated Fowler position,

cleaning the drain by suction, many of these cases can be saved.

As to the treatment of the stump, we cannot lay down any hard and fast rules. Any of the recognized methods will prove satisfactory, but none are applicable to all cases. Personally, I prefer the purse string applied after clamping off and removing the appendix. In many of these cases it is impossible to use the purse string owing to the inflammatory thickening found about the base of the appendix. In such cases we can either ligate, or the appendix can be cut out of the head of the caecum, just as we would cut out the core of an apple, and closed with a double row of Lembert sutures, after the method suggested by Joe Price. It is interesting to note the many complicated instruments that have been devised for the treatment of the stump in appendicitis. I have found that the ordinary eight-inch Kocher clamp answers every purpose. With the proper distribution of gauze the appendix can be safely and quickly removed and the stump dealt with by any of the recognized methods without the aid of any of the complicated instruments devised for this purpose.

A word regarding the Ochsner, or so-called starvation treatment of appendicitis. Ochsner has been very largely misquoted and very greatly misunderstood. He is an earnest and enthusiastic advocate of the early surgical treatment of this disease. In cases seen late, with high temperature and widespread peritonitis, he advises that such cases be treated by removal of all food and drink by mouth, stomach lavage and rectal alimentation, claiming that by so doing the omentum is given an opportunity to turn a beginning general peritonitis into a local peritonitis; in other words, that the patient will be tided over the acute attack, and can then be operated upon in the interim. This treatment has been seized upon by the opponents of the surgical treatment of appendicitis and has been wielded as an argument against operation. It has been applied to cases in which the originator never intended that it should be applied and has, therefore, resulted in setting back surgery rather than aiding it. In all cases of appendicitis the clinician and surgeon should work hand in hand. The failure of the clinician to recognize this condition is due in my opinion largely to the fact that they rarely see its pathology as it is revealed at the operating table. If the general practitioner would follow his cases to the operating table and there see the unanswerable pathological arguments crying for operations that are present in almost every case, we would get these cases earlier and the mortality would be correspondingly reduced. The physician or surgeon who urges a patient suffering from acute appendicitis to wait for an interval operation, assumes a great responsibility. All these cases do not reach an interval, and many of those that do, refuse operation. A man who has had one attack of appendicitis should have his appendix removed. The insurance companies now refuse to insure applicants who have suffered from this disease. Neither the surgeon nor the physician can afford to advise his patient to assume a risk that a corporation would not carry. I hope that these brief re

marks will bring out a full discussion of this subject.

DISCUSSION.

Dr. O. H. Elbrecht had been at first rather discouraged with the technique of the purse-string operation. Recently an article had appeared in which the author claimed that at least 50 per cent. of the cases treated by the clamp, and then invaginated, opened up before the invagination was complete. Within the last year Dr. Elbrecht had removed eighty-two appendices, and but one had opened up. The purse-string technique was certainly the cleanest and quickest method of all. He objected to the cuff method because he believed one thereby buried infection.

Dr. C. C. Morris thought Dr. Scott was right in saying that some cases get well without operation. He agreed with Dr. Brown with reference to drainage, but he had given up the use of the glass drainage tube, simply using a gauze wick. In cases of diffuse peritonitis where the appendix was not readily discovered, it was better to simply open the belly cavity and drain the wound. His usual method of treating the appendix was to cut the appendix off flush with the caecum. This operation could be performed as quickly as any of the other methods. There was nothing left to bury, and there was no infectious material to confine and no raw surface, for the sutures were passed between the mucous and serous coats. When the appendix was removed there were two points to bear in mind: remove all infectious material and see that there was no possible chance for a leak from the stump.

Dr. William S. Dutch believed Dr. Moore was right and that surgeons did lay themselves open to criticism. He did not believe a surgeon who had left the appendix in the abdomen should say that that patient was cured. It could not be proved except at the *post mortem* table that the appendix had not created some trouble in the belly. However, he believed it was generally admitted that the internists differ as to methods of treatment of diseases. Since it was not possible to look into the belly with the x-ray and see what was going on they simply tried to do the best they could in the individual case. Occasionally a case would be seen which could not be diagnosed by the physicians or surgeon. He had just operated on a case which looked like appendicitis, yet the appendix was in a perfectly normal condition, but there were three ulcers near the caecum, giving rise to all of the pain and fever. He thought Dr. Moore was a little severe in thinking they could not come to conclusions. He believed the men of the younger class at least, had come to the conclusion the appendix should be removed, and the sooner the better, and that hesitation simply meant to give the patient a chance to die.

Dr. Brown in closing, referring to the starvation treatment of these cases, said it was unfortunate, in his opinion, that Ochsner had ever given this treatment to the profession. Ochsner was thoroughly radical in his views relative to dealing with appendicitis. It was exeeedingly unfortunate that the practitioner did not go the operating table with the surgeon more frequently. No one could

have any conception of the nature of appendicitis without having a thorough familiarity with the conditions as they present themselves in the operating room. As to the treatment of the stump, he did not consider any method applicable to all conditions. All methods were comparatively simple. As to the general practitioner in his relation to the surgeon, there should be no antagonism between them. The clinician was useful in such cases, but he should work hand in hand with the surgeon to get the best results. The failure of physician to diagnose these conditions was due to the fact that he was not as familiar with the pathology of the case as the surgeon. As to diagnosis, there was no disease that did not sometimes present difficulties, but when there was an inflammatory condition in the abdomen an exploratory laparotomy was to the advantage of both patient and surgeon. A great many people die of appendicitis because they reach the surgeon too late. If the clinician would see more intraperitoneal surgery he and the surgeon would get nearer together and many patients would be saved. He was convinced, too, that many of the cases referred to as cured without operation ultimately reached the operating table.

A METHOD OF RADICAL RELIEF OF CASES OF DEAFNESS LONG ABANDONED AS HOPELESS; ILLUSTRATED BY A CASE OF NINETEEN YEARS' STANDING.*

By Robert Barclay, M. D., of St. Louis, Mo.

A man, aged thirty-seven years, formerly a traveling salesman, but latterly employed as a street-railroad conductor, came to consult me respecting the possibility of securing, through an aural operation, radical relief of dullness and severe pains in the head, vertigo, and ear discharge which was, itself, not only very fetid, but had rendered his breath offensive, much to his embarrassment and mortification, socially, as well as commercially. He had been led to consult me the more willingly, from the fact that Dr. Edward P. North of this City had kindly taken an interest in his case, so far as to inform him, that the operation of tympanic resection, advocated by me in such cases, was designed to relieve, not only from ear discharge, vertigo, headache and other active and annoying symptoms, but from deafness as well—a blessing for which he had long since ceased to hope. However, the former symptoms of which he complained—dullness and severe pains in the head, vertigo, fetid discharge, and offensive breath,—had become so annoying as, finally, to demand attention. Right here, it might be as well to state, that his disability had prevented his continuing the pursuit of his calling as a salesman; his going into business for himself, as intended; his promotion to the more lucrative position of inspector on his road; and his financial success, because of prolonged expense,

*Read before the St. Louis Medical Society of Missouri, June 17, 1905.

and occasional absence from his business, attendant upon the intercurrent exacerbations of his disease.

Examination of his right ear showed the destructive effects of suppurative otitis media, which had continued in spite of treatment, for over nineteen years, and which had been brought on, originally, in boyhood, by swimming and diving. The greater part of the vibrating portion of the drum-head was gone; and the neighboring parts were coated with fetid, pasty pus. The only irritant ef extra-aural origin, recognized in the case, was some dental irritation; which was subsequently removed.

The operation of tympanic resection, recommended by me, was consented to; and he was operated upon, thus, on the 29th of December.

Excepting a trifling amount, upon the ninth day, there has been no discharge whatever from the ear, since the fifth day after the operation; and his headache, vertigo, fetor, etc., disappeared at once.

The previous condition of his hearing, and the effects of the operation upon it, can perhaps be most fully appreciated through the following, of the patient's own statements:

[Before the operation.] "I could not distinguish a word spoken in my right ear."

[On the fourth day after the operation.] "At the present time, I can hear a whisper; and can hear common conversation in an adjoining room."

[On the seventh day after the operation.] "I can talk" (he *means* "hear") "through the telephone with the operated ear."

[Shortly after the operation, he returned to work; and, on the thirty-ninth day after it, stated of the operation]: "I can say, that it was beyond my expectations; for my hearing is so good, that it is annoying at times. People talking to me, at times seems as if they were shouting; and the noise of a street-car is almost deafening.

"I do not have head-ache at all.

"Before the operation, in a conversation, I was always saying 'What?' because I did not hear; and now, I find it nothing but a habit; for I can hear as good as any one. It took me some time to get used to the sounds; for it seemed strange to me, to hear noises that I never heard before. It has been a great help to me in my work; for I have to answer a great many questions, and from all classes of people; and I find that my hearing gets better all the time."

I have seen him several times during the past few months, and he declares himself more and more delighted with the results of the operation.

I have presented the report of this case, this evening, for the purpose, once more, of directing your special attention to a method of treatment, whereby we may give radical relief to a large number of cases of deafness, which, from time immemorial, have been generally abandoned as intractable, and are almost universally found hopelessly incurable by all ordinary methods of treatment. I allude especially to such cases as, after having stubbornly resisted the curative influence of ordinary remedies at the hands of presumably qualified practitioners, for years, have at last lost all hope of relief of their deafness.

These are cases of deafness, where, on the one hand, every effort has been made to "guard the patient from changes of temperature and moisture, to improve his hygienic surroundings, regulate his diet and improve the general health and tone of the system; where, when hypertrophy and hyperæmia of the mucous membrane, and closure of the Eustachian tube have played the principal part, general treatment has been supplemented by judicious use of the Politzer bag and Eustachian catheter, and suitable local treatment of the nasal and naso-pharyngeal catarrh."

These are cases of deafness, on the other hand, where the patient, for months and years, going perhaps from specialist to specialist, has faithfully submitted to the prescribed treatment,—such as "syringing; astringent, caustic and antiseptic application; the insufflation of powders; the application of electricity; the inflation and stimulation of the middle ear by means of air or vapors passed through the Eustachian tube; or treatment of the throat."

Cases of deafness, where, on the one hand, measures such as these have been faithfully and intelligently carried out, ofttimes for years and years, and are found at last to be all in vain—and, on the other, where the patients have finally abandoned all hope of relief of their deafness—these are the cases that I have referred to, on the one hand, as "popularly deemed hopelessly incurable," on the other, as those of "hopeless deafness." And these are the cases, in whose interest, I ask your attention, most carefully, to the modern method of treatment, recently developed along rational lines, for the radical relief of the condition underlying their deafness and other most distressing symptoms. For, associated with the deafness in these cases, we find usually one or more of the following symptoms, for the relief of which, frequently, they are driven to us, perhaps long after they have abandoned all hope of relief of their deafness—in some cases, indeed, after many, many years; as in the case cited by me this evening, in illustration. Any of the following may occur with the deafness as concomitant symptoms:

Dizziness;

Discharge from the ear;

Habitual low-speaking voice;

Better hearing in a noise (worse hearing in quiet places); and

Aural distress.

Now, several of these symptoms are common to cases of deafness whether from catarrhal or from purulent middle-ear disease, arising, as they do, in either case, from a similar underlying physical condition. This condition is that of altered tension and mobility in the auditory conducting mechanism—the transmitting structures of the middle-ear, and their appendages—lying between the external auditory canal, without, and the labyrinthine nervous apparatus, within,—a condition that disturbs labyrinthine tension, and acts as an obstacle to the normal transmission of the force of sound-waves, to and from a functionally active labyrinth and auditory nerve, within,—a condition, as you very readily understand, attended with chronic progressive deafness, and with dizziness, noises in the head and ears, habitual low-speaking voice, better hearing in a noise (worse hear-

ing in quiet places), aural distress—one, several, or all of these symptoms.

Whether or not this underlying physical condition obtains in catarrhal or in purulent inflammation of the middle-ear, is immaterial, so far as regards the principle that is to guide us, in any given case, in our effort to afford relief of deafness. That principle is,—to eliminate the aforesaid underlying physical condition of altered tension and mobility in the auditory conducting mechanism; to effect the liberation of the deeper portion of the auditory conducting mechanism, still movable, from the permanently immobilized portion without; while making provision, also, for natural drainage, and for admission of ærial sound-waves directly to the deeper, still movable portion of the auditory conducting mechanism and labyrinthine nervous apparatus within; while providing for free exit of sound-waves, normally seeking exit through the tissues of the head and ear.

An additional feature, however, presents, in such cases, if the deafness be attended by discharge from the ear, or active purulent inflammation of the middle ear. Here, we are concerned, not only with correcting abnormal tension and mobility of the conducting mechanism, but with putting a stop to an actively destructive and infectious process; the problem, here, therefore, involving, as well, that especially of establishing free drainage, removing diseased products, quieting irritation, sustaining and reenforcing vitality, and keeping the affected parts clean and disinfected. Where, in such cases, this cannot be accomplished by medicinal means, whether or not the mastoid cells have already become involved, the method advised herein should be resorted to; inasmuch as the so-called "mastoid operation" alone is at best an illogical, imperfect and hazardous resource, mentioned here only to be, by itself, unqualifiedly condemned.

In cases of deafness depending, as explained, upon an immobilization of the outer portion of the auditory conducting mechanism, whether from fixation or from increased inertia,—especially when due to a catarrhal process,—low-pitched sounds are found the more difficult of transmission to the auditory nerve. Likewise, sound-waves generated within the patient's own head—whether by chewing, talking or singing; by the pulsation of the auditory, or their neighboring blood-vessels; or by the friction of the blood-current upon the vessel walls—sound-waves, generated thus within the patient's own head, normally seeking exit by transmission through the tissues of the head and ear, meet with obstruction on reaching the immobilized portion of the auditory conducting mechanism, and are reflected inward by it; thus agitating the more deeply lying and still movable parts of the conducting mechanism, — giving the patient the same impression as if these sounds had come inwards, from a point without and beyond the movable portion—thus, practically, producing an echo in his own auditory conducting mechanism. Consequently, he is troubled with the so-called "head-noises," "death-bells," etc. In this way, also, the sound of his own voice, especially, appears to him

increased in force and volume,—that is, by this echo in his auditory conducting mechanism—and it impinges so strongly upon his auditory nerve, as to deceive him as to the actual volume of his own voice. He thereupon lowers the tone of his voice, always augmented by the echo in his ear, until it seems of normal volume, so far as he himself can determine. Consequently, he speaks habitually in an abnormally moderated or low tone of voice.

In a quiet place, such a patient usually hears worse. Whereas, when in a noisy place—as, for example, in a moving street-car, or in a noisy machine-shop—he will usually find that he can, while there, hear speech and other sounds much better. This is because the constant noise shakes loose that portion of his auditory conducting mechanism that elsewhere is more immobilized by abnormal tension; and the transmission of other sounds, to the deeper, still movable, and the perceptive parts of the ear, is, in the noisy place, thus rendered more easy.

If, therefore, among hopeless cases of deafness,—particularly if they be victims of so-called aural "catarrh,"—you happen to meet one who speaks habitually in an abnormally moderated or low tone of voice, enquire whether or not he can hear better when in a noisy place. By the exercise of ordinary tact, any one can secure, without impertinence, information upon this point, sufficient to arrive, off-hand, at some approximately correct conclusion as to the nature of the condition underlying the deafness; and whether or not it be such as might probably be relieved by this operation. As an example of the information usually to be elicited upon this point from such cases, I recall one, where, when the street-car was quietly stationary, the conversation of any one sitting alongside was heard with difficulty by the patient; while, on the other hand, when the car was in motion, noisily, of course, the hearing was so acute, that the conversation of couples, sometimes as far as six seats distant, was very readily heard, — upon some occasions, the patient stated, where the character of the conversation was evidently such, that the speakers would, consciously, certainly not have allowed it to be overheard by others; and there actually were others seated between the patient and the speakers, even in the seat next in front of the speakers.

I would repeat: if, therefore, you happen to meet any deaf person,—particularly if he be a victim of so-called aural "catarrh,"—who speaks habitually in an abnormally moderated or low tone of voice, and who can hear better in a noise or noisy place, rest assured that you have met with a case of immobilization of the outer portion of the auditory conducting mechanism, and that he has a reasonable hope of radical relief by the method of treatment under consideration. For my experience has been, that *any very deaf person who speaks habitually in an abnormally moderated or low tone of voice, who hears better in a noise or noisy place,—no matter how long he may already have been afflicted, and notwithstanding that every other remedial measure may have been tried in vain,—may yet be relieved by resection of the auditory conducting mechanism,*

proportionately to the distinctness of these symptoms.

The appropriate details of such surgical procedure are peculiar to each individual case, and are to be estimated and put into execution, modified in detail, step by step, as the surgical and anatomical conditions confronting the operator may indicate, throughout; the best guide being the judgment of the operator—it being assumed, of course, that the case is in the hands of one practically familiar with the surgical anatomy and the physiology of the ear, and thoroughly skilled in such difficult, deep aural surgery. In my own experience, the form of operation most frequently indicated in the old hopeless cases, has been that effecting the removal of the drum-head, hammer and anvil bones—the stirrup bone, also, being occasionally removed; and bands, synechiæ, septa, growths, etc., dealt with, as indicated, sufficiently to liberate and expose the more deeply lying auditory structures. This not only eliminates the defects of drainage by the natural route, in the cases of discharge from the ear; but, in the "catarrhal" ones, so exposes the mucous membrane of the drum-cavity, that it undergoes a progressive skin-like or demoid transformation, with disappearance of the mucous gland as such.

The beautifully constructed, delicate aural surgical instruments of the present day, together with the visual and manual dexterity of the expert specialist,—essentials of perfect surgical technique,—ensure rapid, accurate, and thorough operation. Extreme care is to-day exercised, both during its performance and afterwards, to avoid any manipulation or procedure whatever that might, even in the least degree, tend to injure or irritate the remaining structures of the drum-cavity. Careful attention is to-day given to the diet and general condition of the patient. In short, every precaution is taken towards simplifying the operation of to-day, so far that secondary inflammation is unlooked for; and a reformation of membrane—the so-called "substitutive drum-head"—at the site of the normal drum-head, is exceptional. And even when such membrane actually does form, it is readily removable under local anesthesia; and is eventually disposed of thus, either with or without the application of Traumaticin, containing a little Salicylic Acid, and by restricting the patient's diet for a variable period.

Remember, please, that when resorted to for the radical relief of cases of hopeless deafness, this operation of tympanic resection is only designed to effect, by force, the elimination of the mechanical condition of altered tension and mobility in the auditory conducting mechanism,—a condition that disturbs labyrinthine tension, and acts as an obstacle to the normal transmission of the force of sound-waves, to and from a functionally active labyrinth and auditory nerve, within,—a condition attended with chronic progressive deafness, aural vertigo, head-noises, etc., one, several, or all of these symptoms.

And, this operation is advisable only where this condition is not amenable to medicinal, hygienic, or other non-surgical treatment. Where the more deeply-lying parts would

obviously not be mechanically affected by such procedure, it is not admissible.

With immobilization of the auditory conducting mechanism, we may find a defective condition of the auditory nervous, perceptive apparatus. Where the latter is due, partly, to abnormal labyrinthine tension; partly, to deficient exercise of the auditory nerve terminals, through infrequency or weakness of such sound-waves as manage to reach them; and partly, to psychicemotional depression attending the affliction of chronic deafness, with aural vertigo, or head-noises,—this operation is indicated. And it operates beneficially, not only upon the one ear, but also upon its fellow of the opposite side; and for the following reason: Abnormal tension of the conducting mechanism of one ear may produce abnormal tension of the labyrinth, so far as to impair the function of its special nervous apparatus—the auditory nerve and its auditory centre. The auditory centre of the one ear, normally, furnishes a portion of the nervous supply of the ear of the opposite side. When, therefore, the functional activity of this auditory centre becomes impaired by abnormal tension in the one ear, the fellow-ear will so far be deprived of its normal nervous supply, and will suffer in consequence. If, on the other hand, the condition of abnormal labyrinthine tension, in the ear first affected, be removed by timely resection of its conducting mechanism, this entire chain of morbid phenomena may be released, and the fellow-ear rescued. Practically, this fact has been demonstrated conclusively by extended clinical experience with the operation.

In cases, therefore, where abnormal labyrinthine tension, in the ear first affected, would probably be reduced by this procedure, even when there appears probability of but slight benefit to the hearing of this ear, the operation seems generally advisable; inasmuch as it tends, so far as observed, to conserve the hearing of the opposite ear, which otherwise would inevitably become impaired.

To formulate a maxim, then, we may submit the following:

As soon as it is evident, that ordinary and time-worn methods are powerless to cure, this novel radical one should be resorted to—and without unnecessary delay—as neglect to remove the obstacle in the auditory conducting mechanism only keeps the more deeply lying parts the longer without exercise of their normal functions, affects the tension of the labyrinth, and, in so far, tends to impair them, as well as to involve the function of the opposite ear. For the sake of the other ear, then, even if there be hope of but slight benefit to the hearing of the first ear, this method should be employed.

As an indication of what might be expected of this operation, I would remark, that I have seen case after case, over and over, which had been afflicted with discharge from the ear, for a period, preceding the operation, of twenty, twenty-five, thirty, thirty-five, and nearly forty years, promptly and permanently relieved by this method.

I recall a case of so-called "catarrh," in which one ear had been wholly "out of use" for about twenty

years, before the rapid, almost total loss of hearing on the other side. In this case, the operation afforded relief to the long abandoned ear at once; and to such a degree, that it, exclusively, has since been used, and satisfactorily depended upon, by the patient, for telephone communication, and in his social and commercial intercourse.

In another case of marked deafness, where the patient stated, "that for ten years, he was so dizzy that he had no rest, day or night," entire relief of this symptom was afforded by operation; and his hearing was so far restored, that he can hear every ordinary sound satisfactorily—for instance, the tick of a clock in his room, which, before operation, he could not hear unless close to his ear, he can now hear plainly from across the room, even when lying down.

Another patient, who claimed to have had his ear affliction for about thirty years, with ringing noises in his head and ear, and dizziness so severe, at times, as to compel his clinging to something fixed for protection, and who stated, that, to the best of his recollection, "he had never been able to hear a sound of any kind from his affected ear,"—this patient was relieved at once by the operation; and can "hear plainly," can also "hear as well as any one through a telephone," and can "even hear a whisper, or a watch tick, in the ear operated upon."

In one case operated upon, the hearing upon the opposite side was so markedly improved by the operation upon the worse ear, that, within four hours afterwards, the tick of a watch was heard, which had previously been inaudible for about six months.

In other cases of this character, where the deafness, dizziness, and head-noises had persisted for from twenty to thirty-three years or longer, I have seen radical relief afforded from the subjective symptoms, and entirely satisfactory hearing restored, not only for ordinary conversation, music, telephony, etc., but made reliable for long distances,—twenty-five feet or more,—as, in one case, where before operation, shouting voice only at several feet distance, was all that could be heard.

It would be useless, here, further to enumerate details or multiply illustrations. If such are desired, I should be pleased to furnish them, upon request, in reprints of or references to reports of cases, made before representative medical socieites; and from my records.

I am well aware, that there are otologists who appear to have given up the operation on the middle-ear structures in chronic deafness from "catarrh," disappointed in their results. Without presuming to speculate upon the reasons for their misfortune, I can only regret, that their practical experience has not proved as encouraging as my own. A moment's reflection, however, will serve to show how irrational it is, to condemn a potent agent, such as this, as harmful or useless, simply because of results, however lamentable or disappointing in themselves, arising from the indiscriminate or inappropriate employment of such agent. Particularly, since propriety and reason affirm of this, as of every other

resource, whatsoever, that its value lies, not only in its application, but in its proper application. And where occasionally, we meet with marked instances of the undoubtedly advantageous application of a remedy, obviously so beneficent as this one, failure or disappointment should but strengthen our determination to perfect the search for the exact indication for its employment.

These, as far as known, I have tried to state and to explain to you.

In conclusion, the writer would modestly express the hope, that this paper may serve to direct the attention of some hearer—one more professional brother—to the resection of the auditory conducting mechanism as a method of radical relief for hopeless cases of deafness, with or without discharge from the ear,—whose merits certainly entitle it to more careful consideration than it appears hitherto to have been shown by the medical profession generally.

A PRACTICAL SUGGESTION RESPECTING THE REMOVAL OF FOREIGN BODIES FROM THE LARYNX; ILLUSTRATED BY A CASE OF COCKLE-BURR UPON THE VOCAL CORDS.*

By Robert Barclay, M. D., St. Louis, Mo.

On a Sunday afternoon, several years ago, a lady of German parentage, aged twenty-two years, was brought to me by Dr. G. H. Schroeppel, of Collinsville, Illinois, for relief of symptoms, supposed to be due to the presence of a foreign-body in the larynx.

It was stated, that, the second evening before, while on the way homeward after dark, an ordinary cockle-burr had become caught upon her dress-skirt. This, she removed; but finding it impossible then to cast it away from the cloth gloves that she wore, she pulled it from them with her teeth; whereupon it sprang back into her mouth and throat, and began choking and smothering her.

"Before I brought her to St. Louis," said Dr. Schroeppel, "the history and treatment were as follows:

On the evening of the second day before our visit to your office, I was called to see the patient, who lived three miles in the country; the messenger stating, that the lady had swallowed something, which had become fastened in her throat. I hurried to the scene, as fast as possible, to give her assistance; thinking that a piece of meat or other edible had become wedged in her throat, which would be apt to cause death from strangulation.

"When I arrived, I found the patient much perturbed and excited, but evidently not suffering any pain or difficulty in breathing; but she was unable to speak above a whisper. I did not know what was the cause of the aphonia, which had developed so suddenly; so, after thorough interrogation, I was able to get a statement to the effect, that she had swallowed a cockle-burr. I, at once, made as thorough examination as the absence of

* Read before the St. Louis Medical Society of Missouri, June 17, 1905.

necessary apparatus permitted; but could discover nothing.

"Then the œsophageal bougie was introduced and an attempt made to displace the offending body; but again without success.

"I gave her a throat-wash; and, as she was not distressed, asked her to come to my office next morning, where I again examined her; but could not find anything.

"That the foreign-body had lodged deep into the larynx, I was satisfied; so I asked my consultant, Dr. Siegel, to examine her. He could not locate the berry either. So, I advised her to go to St. Louis to a specialist and have her throat examined; and, if possible, to have the foreign-body removed."

At the time when I first saw her, there was no pronounced dyspnœa; and the patient could speak in a hoarse whisper.

Upon introducing the laryngeal mirror, the cause of her trouble and the reason for the peculiar aggregation of symptoms—the presence of a cockle-burr upon the vocal cords—was at once evident.

That you may understand my description, perhaps, more readily, my little son has kindly made these enlarged drawings from my original clinical sketch.†

Right upon the vocal glottis, the respiratory portion being comparatively uninvolved, was fixed the cockle-burr, (which I show you in this bottle). It lay antero-posteriorly, its long axis almost exactly corresponding with the median line of the rima-glottidis. Its base was directed backwards. The point of the sharp spine at its apex was imbedded, anteriorly, apparently just above the commissure of the vocal cords, in the lower curve of the cushion of the epiglottis. From its position, it seemed as if the tips of some of its tentacles must necessarily be in the ventricle of the larynx, upon either side.

Those of you who have met with cases of cockle-burr in the larynx, or have read the literature on the subject—such as the reported experiences‡ of Dr. Max Thorner of Cincinnati, Dr. Crawley, Dr. J. F. Thompson, Dr. Sajous, and our own esteemed townsman, Dr. Wm. C. Glasgow, and Dr. Gregory with him—will appreciate the problem presented: to remove this cockle-burr with least possible injury to the larynx.

The one great immediate difficulty with which one may have to contend, in attempting forcibly to remove a foreign-body of this character from this stronghold, is that of the intense reflex laryngeal spasm which may be excited thereby, against the sharp spines and tenacles of the cockle-burr.

Noting carefully the situation of the cockle-burr, and realizing, that, if I would more peaceably and certainly

†Not published here.

‡Consult Burnett's System of Diseases of the Ear, Nose and Throat, 1893, Vol. II, pp. 525–526.

Medical News, Philadelphia, 1885, XLVII, p. 677, and 1886, XLIX, p. 657.

Cincinnati Lancet Clinic, 1886, N. S., Vol. XVII, p. 93.

Chas. E. Sajous' Annual of the Med. Sciences, 1888, Vol. III, p. 306.

Jour. Amer. Med. Asso., 1887.

St. Louis Courier of Medicine, Vol. I, No. 5, May, 1879, pp. 518–520.

and with less damage remove it, I would have to provide against this difficulty; it occurred to me—and this is the suggestion I venture to make for your consideration—to invoke the aid of an antagonistic reflex; a reflex, not only antagonistic to, but, as I believed, far more imperious than that of the dreaded laryngeal spasmodic reflex,—namely, that of the demand of the body for oxygen after forced prolonged expiration.

It occurred to me, also, that the necessity of emptying the lungs at once, immediately after a forced, deep and full inspiration, would prove so imperious as to eliminate the tendency to spasm of the larynx, if, at the very instant of beginning expiration, the foreign-body were seized with the forceps without traction, and held, immovably, until the termination of the purposed forced prolonged expiration,—when it was intended to extract the burr.

This course was determined upon; a Fauvel laryngeal forceps with transverse bite (which I here show you) being selected for the purpose.

A light spray of Cocaine solution was then applied, to anesthetize the superficial tissues of the larynx; after which, the patient was instructed as to her part of the procedure. She was directed, upon the word, to take a slow, very deep, forced inspiration; and then, at the words "Say A!" (not "Ah!") to attempt to phonate that vowel. She was directed to prolong this sound, "A," however much it might tax her to do so at the end of her breath, until I should give her the command, "Breathe!", when she was to take a sudden, quick, full breath. Having demonstrated this on myself, several times, to her entire comprehension, I introduced the laryngeal mirror and the Fauvel forceps. Passing the forceps, at the proper moment, behind the cockle-burr, the blades were gently separated, and the body of the cockle-burr was seized firmly, just as the patient responded to the command to "Say 'A'!" It was held immovably, as the urgent command was loudly repeated, again and again, to "Keep on saying 'A'!"—until I saw that she was growing desperate for "air;" when I gave her the order, "Breathe!"

The larynx at once relaxed into the position of forced inspiration; and as it did so, a slight wig-wag motion of the forceps instantly brought away the entire cockle-burr, without the loss of a single one of its tenacles, and without wounding any of the laryngeal tissues.

The patient forthwith returned home with Dr. Schroeppel; who subsequently reported her prompt and uneventful recovery.

3894 Washington Boulevard, St. Louis, Mo.

Discussion.

Dr. Greenfield Sluder said most of the foreign bodies in the larynx were swallowed. The majority of such cases were bones—little chicken bones or fish bones, pins or tacks that had been held in the mouth. He had seen a number of cases of fish bones accidentally swallowed. They were not apt to go down far as the sharp point of the fish bone punctured the tissue and lodged there. He had seen two fixed in the tonsil protruding directly through. He had found fish bones embedded in the base of

the tongue directly at right angles to the surface. Such foreign bodies were sometimes exceedingly difficult to recognize. The two mentioned protruded about one thirty-second of an inch and were very difficult to discover but easily removed. But these were different from the cockle-burr which must needs be breathed in. About a year ago he saw a baby that had swallowed a shoe button. There was nothing to be seen in the larynx or pharynx but auscultation of the chest showed that the right lung was entirely closed off. The case was referred to Dr. Carson and through a tracheotomy wound the shoe button was removed. A case sent to him recently was exceedingly interesting. The patient, a woman about thirty-five years of age, put a pin in her mouth and swallowed it. She localized it about the right tonsil. An x-ray photograph showed no pin, but she declared the pin was there and hurt violently. More x-ray pictures were made but none of them showed the pin. Finally the patient went to a surgeon, who examined her throat, located the foreign body and operated, taking out the styloid process of the temporal bone as a foreign body. It was much elongated and in her efforts to dislodge the foreign body the patient evidently had broken off the styloid process with her finger. In two or three weeks she returned to Dr. Sluder. He made a very careful examination but could find nothing. The patient was then sent to a neurologist and treated for hysteria. Later she came back to him and insisted that the pin was still there. He thought possibly it might be a calculus in the tonsil, so he anesthetized the tonsil and transfixed it but could find no calculus. He concluded that he might set her mind at rest if the tonsil was taken out. After consultation with the surgeon and her regular attendant, the tonsil was removed but the pin was not found and the patient thought it was still there.

Dr. Joseph Grindon was reminded by this experience of Dr. Sluder's of a case he had some twenty years ago, while he was assistant physician to the Poor House. His attention was called to an insane female patient who insisted that she had swallowed a pin and had for years complained of its presence in her larynx. She had asked every doctor there to remove that pin. The speaker finally agreed to remove it. She was given a little homeopathic anesthesia, a show of instruments was made, a drop of blood was brought and having an ordinary pin ready in the forceps the doctor pretended to pull it out and showed it to the patient. She gave it a glance, and said with much disgust, "That ain't it; it was a black pin."

Dr. Robert Carr Block said that as to the difficulties of diagnosis, the sensation of any foreign body in the larynx, pharynx or esophagus is manifested over the laryngo-tracheal region, and unless there is marked dyspnœa, only by thorough examination could its location be determined. It is a rule in these cases, unless there is necessity for hurried tracheotomy or other operative procedure, that inversion should be first employed.

Dr. Barclay, in closing, said there was a difference between the voices of those having a fixation of the outer

portion of the conducting mechanism of the middle-ear and those who did not have such fixation. Those who were deaf from a nervous disease spoke in a higher-pitched tone and more loudly—occasionally they would even shout; but those having a fixation of the outer portion of the conducting mechanism of the middle-ear spoke in a tone of less volume on account of the echo in their own ear. It used to be thought that the irritation of the nervous apparatus, from jarring in a noisy place, was one of the things that helped the hearing of these people I am specially speaking of this evening; but the same shaking up takes place in the normal ear, which hears worse in a noise. He knew some of these people who could, in a noisy place, hear a voice of normal pitch, which a person with healthy ears could not. Such people said they could hear as well as anybody while on the moving cars. Again, it was not the voices alone, but the uniform sounds of the starting and stopping bells, the gongs, etc., that were perfectly heard, bringing out the point that such patients could hear better in a noise. This was one of the features that constituted an indication for operation in these cases. Not long ago a patient who had been advised by Loewenberg, of Paris, and two eminent otologists of New York City, to undergo a mastoid exentoration operation, had consulted the speaker in regard to the advisability of such operation. At a previous operation the hammer had been removed, but the anvil still remained, hidden in the attic of the tympanum. Dr. Barclay removed this from the entrance of the mastoid antrum, with a curved hook, and the patient was thereby relieved of his deafness and no longer troubled with the discharge from the ear. He can hear a whisper now at twenty-five feet distance.

The operation must be indicated as beneficial to many patients, however many others may have been already ruined by it. Dr. Hypes would bear him out in the statement that another one, and one of the most beneficent instruments (the obstetric forceps), was a most murderous and barbarous instrument if wrongly or inappropriately used. And so it was with this operation, which had been used often in the wrong cases or possibly imperfectly performed. Because some people used the obstetric forceps when contra-indicated did not lessen the value of the forceps as an instrument of advantage, nor did the improper performance of this operation indicate that it was of uncertain or no value. The clinical and surgical evidence proved that the explanation here offered of these two symptoms was correct. When the removal of the obstacle stopped the noises in the ear and gave relief, they were certainly a proper indication for the performance of such operation.

As to consequent suppuration, after dealing thus surgically with the middle-ear, one should meddle with the uninvolved parts just as little as possible. Of course, if one shot a lot of stimulating powder or iodoform, or pushed gauze or cotton down there, there would be a reaction from the tympanic mucous membrane.

For the benefit of Dr. Hutchinson, Dr. Barclay would state that he had covered all these points in former

articles. Dr. Sluder and Dr. Block, in their discussion on the subject of foreign bodies in the larynx, had touched one very interesting point, namely, that such a body was often supposed by the patient, from his symptoms, to be in one place when it was actually in another. He had had, upon one occasion, a man tell him that he had swallowed a chicken bone and that it was away down on the left side of the larynx, "for he felt it there." There was a little congested spot on the palate which, when touched, caused the patient to say that that was the spot. It was cocainized, and from it a small piece of chicken bone was removed, giving relief.

Replying to Dr. Sluder, Dr. Barclay said that the burr could not slip away from him during the sudden over-expansion of the larynx, for he had too firm a hold upon it. Where one had a foreign body in the larynx, and could first secure such firm hold, this seemed a most practical method of removal; he trusted that some of the gentlemen present would try it and report results.

JOURNAL

MISSOURI STATE MEDICAL ASSOCIATION

The official organ of the State Association and Affiliated County Societies. Published monthly under the supervision of the Publishing Committee.

ADDRESS ALL COMMUNICATIONS TO 534 NORTH VANDEVENTER AVENUE, ST. LOUIS.

VOL. II. AUGUST, 1905. No. 2

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EDITORIAL.

THE NEW BUILDING OF THE ST. LOUIS MEDICAL SOCIETY.

We take pleasure and pride in recording this month an event which seems to us to be of the first importance in the history of the St. Louis Medical Society, namely, the decision of that body to erect for itself a permanent home.

While the Society in the sixty-eight years of its existence has had an honorable and useful career, yet we may say, in all loyalty, that it has never yet risen to the full measure of accomplishment. In the character of its membership and in the quality of the scientific work recorded in its transactions, it has realized the de-

mands of its friends, but its influence for good has never reached more than a fraction of the St. Louis profession. Its membership has never been one-half of what it should be. Various causes contributed to this condition. For one thing, many of us for a long time failed to appreciate the value of association and organization. The present policy of the National and State Associations is rapidly educating the profession in this particular. Again, many of our best men were for years kept apart by factional enmities, born of a want of charity, which mistook prejudice for principle, and of the narrow mistake that their interests were opposed; whereas, in truth, they were common. This attitude of seclusion and distrust is now out of date. The few who still cherish it, do so to their detriment alone. One only has to look around to realize that there obtains more true harmony, a broader charity, more willingness to understand one another and work in common, and therefore a pleasanter atmosphere about the St. Louis profession to-day than ever before.

Another factor which stunted the growth of the Society was the lack of a home. The representative medical organization of this great city, although a corporate body, had no *corpus*. It was a disembodied sprite. The Society was like the man who attempts to raise his family in a hotel. He can never achieve the consideration in his community which belongs to the solid householder. The children suffer, and it is notorious that they are never numerous. A similar cause in the case of the Society was followed by a like effect.

In the early days of its history the Society met in the basement of a Presbyterian church on the corner of Fifth and Olive streets, and later in the old building of the St. Louis Medical College on Seventh and Myrtle streets. This state of things was necessarily only temporary. Later an arrangement was entered into with the St. Louis Public School Library by which the Society paid to the Library a certain sum for each of its members, the Library on its part giving members of the Society membership in the Library, furnishing the Society with a meeting hall rent free, and setting apart the money received from the Society for the purchase of such medical books and journals as the Society might designate. When the place of the Public School Library was taken by the Public Library, all citizens of the city acquired an equal right to membership free of charge, and the arrangement necessarily lapsed. The members of the Society at that time renounced all right and title to the books which had been purchased with their money, save such title as they held in common with all other citizens. In consideration of past relations, however, the Society was allowed to continue in the use of a meeting place one night in the week.

While this arrangement was entered into in good faith on both sides, its results were most unfortunate to the Society. The failure to realize the spirit of its provisions is chargeable to neither organization alone. Its main effect was to keep the Society for years in swaddling clothes. Recent investigations show that the tissues of the child at birth contain an excess of

iron, which is of use in supplying the deficiency of that element in the milk. Toward the end of the first year the iron reserve is exhausted, so that if the child is continued long thereafter on the breast or bottle to the exclusion of other food, there ensues an anemia and an arrest of development. Something like this seemed for a time to affect the Society. We believe that its being provided with free quarters delayed its growth, inasmuch as it was thus deprived of at least one incentive to initiative and enterprise.

Finally, late in 1904, the society cut loose from its old associations, and, after a brief sojourn in the building of the Young Men's Christian Association, rented a hall in the building of the St. Louis Medical Library. While the location of the hall is ideal and the contacts thus created with the medical library are mutually pleasant and advantageous, yet it was from the first evident that something better should speedily be devised, inasmuch as the hall barely accommodated the rapidly growing attendance. Soon there would not be even standing room.

In view of these undeniable facts, the society before adjourning for the summer vacation determined to build its own home, a lease for a term of ninety-nine years having been secured on the lot immediately adjoining the Medical Library building at 3525 Pine street. The society authorized its building committee to draw on the treasury to the amount of $4,500 in order to commence the building. There will be an auditorium forty feet wide by fifty feet long, with about 175 permanent seats, but capable of accommodating a good many more. There will be no posts to obstruct the view or mar the appearance of the interior. The walls are to be lined on the inside with buff brick, and the ceiling paneled in wood, giving at once a solid and tasteful effect. The floor will be pitched as to give each one a good view of the speaker, specimen tables, etc. There is to be a level space in front extending some feet in front of the rostrum and another back of the last tier of seats. Between these there will be a slope of six feet in thirty. Ample aisle space is provided. The committee knowing that a doctor enjoys a little physical comfort after a hard day's work, has given especial thought to the seats. These will be not only of approved construction, but ample space is to be allowed for each seat and between the rows of seats so as to avoid all crowding. To one side in front is the entrance lobby. Provision has been made for cloak rooms, lavatory, a heating plant, etc.

In all respects the hall will be one in which the society can take genuine pride. Additional funds will be necessary in order to complete and furnish the building. For the purpose of raising these funds there has been appointed a finance committee of twenty, with Dr. Robert M. Funkhouser as chairman. They will doubtless secure the needed amount within the next two or three months, so that we may hope before the snow flies to see the old society at last in a comfortable home.

AMERICAN MEDICAL ASSOCIATION.

The Fifty-sixth Annual Session of the American Medical Association was held at Portland, Oregon, July 11th to 14th. The first general meeting was held in the Armory of the Oregon National Guards, and was called to order by the President, Dr. John H. Musser of Philadelphia, who introduced the President-elect, Dr. Lewis S. McMurtry. Dr. McMurtry then delivered his address.

The program was generally conceded to be the best thus far presented by the Association.

The scientific work was divided into twelve sections. The registration showed 1,630 members in attendance.

The hospitality of the Portland physicians will long be remembered by those in attendance. Tuesday evening a reception was given at the American Inn (Exposition grounds). Wednesday evening receptions were given by Dr. and Mrs. Wm. Jones, Dr. and Mrs. R. B. Wilson, Dr. and Mrs. Kenneth, A. J. McKenzie and Dr. and Mrs. S. M. Coe. Thursday evening the City and County Medical Society gave a reception and smoker at the Oaks. Special electric trains chartered for the occasion took the members and their friends three miles south of the city on the east bank of the Wilamette river, where supper was served from 9:00 till 11:00, and a musical program rendered till midnight.

Friday four of the largest and finest passenger steamers on the river carried members of the Association and their guests up the Columbia river to the Cascades, where luncheon was served. Altogether the meeting, except from the numerical standpoint, was a grand success.

Following is a list of the members of the Missouri State Medical Association who were registered at the Portland meeting:

Amerland, J. H., St. Louis.
Austin, M. B., Brunswick.
Beattie, T. J., Kansas City.
Carson, N. B., St. Louis.
Cooper, C. L., Kansas City.
Cordier, A. H., Kansas City.
Crowell, H. C., Kansas City.
Dannaker, C. A., Kansas City.
Dickerson, W. L., St. Louis.
Dorsett, W. B., St. Louis.
Dunlap, W. O., Sedalia.
Fassett, C. W., St. Joseph.
Fleming, A. W., St. Louis.
Foster, H., Kansas City.
Frick, W., Kansas City.
Gaines, J. W., Kansas City.
Gashwiler, J. S., Novinger.
Gray, M. A., Craig.
Griffith, J. D., Kansas City.
Hall, D. W., Kansas City.
Hall, J. R., Marshall.
Jacobson, H., St. Louis.
Kieffer, A. R., St. Louis.
Lippe, M. J., St. Louis.
Moore, W. G., St. Louis.
Murphy, F. E., Kansas City.
Nicholson, C. M., St. Louis.
Pierpont, J. E., Skidmore.
Pile, O. F., Memphis.
Porter, D. R., Kansas City.
Punton, J., Kansas City.
Riley, C. M., St. Louis.
Rowell, H., Kearney.
Schlueter, R. E., St. Louis.
Schwab, S. I., St. Louis.
Sloan, R. T., Kansas City.
Stockwell, B. E., St. Louis.
Tanquary, J. H., St. Louis.
Taussig, F. J., St. Louis.

Thrope, J. L., Jefferson City.
Wells, H. P., St. Louis.
Wiener, M., St. Louis.
Wilson, G. C., Nevada.
Yates, P. C., Neosho.

OBITUARY.

Dr. Jas. F. Graves.

Dr. James Francis Graves was born in Montgomery county, Mo., May 28, 1849; died July 4, 1905. He grew to manhood on his father's farm, receiving his education at the neighborhood school and at the State University of Missouri. He was graduated in medicine from the St. Louis Medical College in 1878. He practiced medicine in Montgomery county continuously since his graduation, and since October, 1879, he lived in Montgomery City.

Dr. Graves was a true man in every relation of life—a man who enjoyed life greatly—full of affection and sympathy and universally loved by those who knew him. He was the personification of professional integrity. Money remuneration was the least part of his pay in his professional work, for his patients loved him like a father or brother, and this was the greatest joy of his life. He had an attack of la grippe last January, from which he never fully recovered, and the depression caused by poor health was the only cause known for the tragic ending of his life by his own hand.

A truly good man is gone—one whose place in the hearts of the people in this community can never be filled.

Dr. W. C. Tyree.

Whereas, Almighty God, in His wisdom, has chosen to pluck from our midst one of our ablest and most honored members, Dr. W. C. Tyree, while in the prime of his life, and at a time when he was enjoying the height of success in his profession; and,

Whereas, We realize that he was an honest, straightforward and trustworthy gentleman, not only in the practice of his specialty, but as a member of this organization of which he has served as president, as a member of the faculty of one of our leading medical colleges in which he taught for years, and as a member of the municipal council of our city; even in all public and private life; and,

Whereas, We consider his removal a dire loss to our society, to the profession, to the community as well as to the family; and,

Whereas, We, the members of the same profession, feel keenly such loss, the more, realizing that the science of medicine can deal only with health and disease, not death; therefore, be it

Resolved, That the Jackson County Medical Society deeply regrets the loss of this one of its most esteemed members, and regards his memory with reverence and love; ever looking backward over his life with pride in the knowledge that he was one of us, and holding out his career to our younger members as a standard for the qualities herein expressed; and be it further

Resolved, That we extend to his family our heartfelt sympathy for

them in their hour of sadness and loss, together with a willing proffer of assistance for them in the future; and be it further

Resolved, That a copy of these resolutions be spread upon the minutes of this society, a copy sent to Mrs. Tyree and family and to the Kansas City *Medical Index* and JOURNAL MISSOURI STATE MEDICAL ASSOCIATION.

(Signed) E. L. CHAMBLISS,
JNO. PUNTON,
C. B. HARDIN,
Committee.

COUNTY SOCIETY NOTES.

BUTLER COUNTY MEDICAL SOCIETY.

Dr. A. E. Lyle, President.
Dr. E. N. Chastain, Secretary.

The Bates County Medical Society and The John T. Hodgen Medical Association, met in joint session in Adrian, July 6, 1905, with Dr. A. E. Lyle, president of the county society in the chair. The first part of the afternoon was given to the county society. After finishing the preliminary business a paper was read by Dr. T. F. Lockwood, of Butler, entitled. "Criminal Abortion a Prevailing Evil Against the Unborn Generation; a National Crime Committed for Mere Social Promotions." The subject brought out a very enthusiastic discussion by the following gentlemen: Drs. Gillmore, Boulware, Lyle, Colson, Whipple, Duckett and Overholser. There being no other papers to read, Dr. Gillmore presented three very interesting cases, which were examined by members present and reported to the society. They were discussed, diagnosed and treatment advised accordingly.

There being no further business to come before the meeting, adjournment was in order to meet first Thursday in August, 1905, at Spruce, in the eastern part of the county. Dr. Colson, of Spruce, promised the society if it would meet there to furnish the doctors with a good dinner and a nice shady grove to meet in.

T. F. LOCKWOOD, Reporter.

THE JOHN T. HODGEN MEDICAL SOCIETY.

After a few minutes' recess the John T. Hodgen Society convened, with Dr. T. H. Duckett, president, in the chair. Minutes of previous meeting were read and approved. The first paper read was by Dr. Overholser, entitled, "The Circulatory System." This proved a valuable paper and the discussion was indulged in by a majority present. Dr. T. C. Boulware read the next paper entitled, "Static Electricity as a Therapeutic Agency Briefly Considered." This paper was listened to with unusual interest. An after-supper session was held and many interesting cases were reported and discussed. A general good time was had, as is always the case when we meet at the thriving little town of Adrian, the home of our esteemed friend, Dr. Gillmore. The next meeting will be held at Nevada, first Thursday in October, 1905.

T. F. LOCKWOOD, Secretary.

ST. LOUIS MEDICAL SOCIETY.

Dr. F. L. Henderson, President.
Dr. T. A. Hopkins, Secretary.

The St. Louis Medical Society has convened in regular session three times since June 16th. The society has voted an appropriation of $4,500 towards building a new society auditorium. When completed the building will cost about double that amount. The amount voted is in the treasury at the present time. The ground will be broken during the summer, and it is anticipated that the new building will be completed by next fall.

At the meeting of June 17th an interesting case was presented. The patient had received an injury to his arm and cellulitis developed. Pus was found and evacuated by a long, deep incision, extending from near the elbow to the dorsum of the hand. The wound was dressed antiseptically and in a few days the infection subsided. The wound was then sutured and healing by first intention was obtained. This case was presented by Dr. J. F. Menistrina.

At the meeting held June 24th, Dr. Norvell W. Sharpe presented several pathological specimens, as follows: "Aneurysm of the Arch of the Aorta," "Pathological Appendix," "Ovarian Cyst," "Carcinoma of the Breast," and a specimen from a case of "Spina Bifida." The specimens were interesting and came from rather perplexing cases. Discussion by Drs. Grindon, Morfitt and Funkhouser.

At the meeting of July 1st, Dr. R. M. Funkhouser was to have presented a paper on "The Limitation of Rest in the Treatment of Fractures," but owing to the great amount of business to be done, Dr. Funkhouser requested to be allowed to defer reading the paper till some future time.

The usual time for summer adjournment has arrived, and a motion "to adjourn till called by the president next September," was made and carried. C. H. Shutt, Reporter.

RALLS COUNTY MEDICAL SOCIETY.

Dr. W. L. Birney, President.
Dr. T. J. Downing, Secretary.

The Ralls County Medical Society met in regular session at Spalding Springs, July 13th, Dr. W. L. Birney in the chair. A number of physicians from Monroe county, Marion county and Pike county attended the meeting.

Dr. Fred Walter read a paper on "Hysteria." He believes hysteria is caused by a toxin of the bacterium coli commune which, under certain conditions, becomes pathogenic to the individual. He would cure these patients by using a pure culture of the bacterium coli of domestic animals. A general discussion followed the reading of the paper.

Dr. M. O. Biggs, of Pike county, read a strong paper on "Gall Stones."

Dr. E. T. Hornbach, of Marion county, read a very practical paper on "Ophthalmia Neonatorum," and Dr. Baskett, of Marion county, presented an excellent paper entitled, "Perfect Manhood from a Physical Viewpoint." These papers were very generally discussed by all the members.

The subject for general discussion was introduced by Dr. Waters, "Summer Diarrhœa in Children." Dr. Waters spoke of the pathology and etiology, and the treatment was discussed by the physicians present.

Remarks on the death of Dr. O. B. Hicklin, late president of our county society, were made by Dr. W. S. Hendrix and Dr. W. S. Harwood.

The next meeting will be held at Center, on October 12th.

T. J. DOWNING, Secretary.

VERNON COUNTY MEDICAL SOCIETY.

Dr. H. C. Jarvis; President.
Dr. T. B. Todd, Secretary.

The Vernon County Medical Society met at Nevada on June 6th, the president, Dr. Jarvis, in the chair. After the reading of the minutes of the last meeting Dr. S. A. Johnson, of Nevada, read an interesting paper on "Digitalis." The discussion which followed was interesting and was participated in by all present.

T. B. TODD, Reporter.

CALDWELL COUNTY MEDICAL SOCIETY.

Dr. R. K. Dodge, President.
Dr. Tinsley Brown, Secretary.

The Caldwell County Medical Society met in regular session at Hamilton on July 5th, the president, Dr. Leeper, in the chair. Three new members were admitted at this meeting, making a total membership of twenty-four in good standing.

Dr. Tinsley Brown read a paper entitled "Sudden Death During or Shortly After the Termination of Pregnancy," and reported a case. The paper was freely discussed by Drs. Waterman, Goins, Cannon, Dowell, Leeper and Eads.

Dr. Leeper, delegate to the State Medical Association, made his report. The committee appointed at the last meeting to consider the adoption of a uniform fee bill asked for further time to make report.

Dr. R. K. Dodge, of Palo, was elected president and Dr. Tinsley Brown was re-elected secretary. The society adjourned for the summer, the next meeting to be held at Kingston, October 4th.

TINSLEY BROWN, Reporter.

BUCHANAN COUNTY MEDICAL SOCIETY.

Dr. P. I. Leonard, President.
Dr. Chas. Wood Fassett, Secretary.

The regular meeting of the Buchanan County Medical Society was held on the evening of June 17th. Dr. O. C. Gebhart was elected to membership. On motion of Dr. Campbell the society extended an invitation to the Medical Society of the Missouri Valley to hold its semi-annual meeting in St. Joseph in March, 1906. Dr. Elam submitted an amendment to the by-laws, changing the time of meeting from Saturday night to Tuesday night.

Dr. Campbell offered a resolution deprecating the practice of printing in the newspaper the names of physicians in connection with the reports of births by the local board of health, and the secretary was authorized to communicate with the secretary of the board of health and the daily newspapers advertising them of this action on the part of the society. Adopted.

Dr. J. M. Bell read an interesting paper on "Acid Dyspepsia." Discussion by Drs. T. E. Potter, C. A. Good, O. B. Campbell and W. T. Elam. Interesting clinical cases were

reported by Drs. Jacob Geiger, T. E. Potter and W. T. Elam.

The secretary reported a healthy condition of the society, stating that but four members had been suspended for non-payment of dues, leaving seventy-one members in good standing. Dr. C. A. Good was elected official reporter for the society.

Upon motion a Symposium on Medical Education was arranged for the first meeting in September, the president and secretary being authorized to select five essayists to prepare papers.

This being the last meeting of the society before the summer vacation, adjournment was taken to the first Tuesday in September.

CHAS. WOOD FASSETT, Secretary.

SHELBY COUNTY MEDICAL SOCIETY.

Dr. H. C. Vaughan, President.
Dr. A. M. Wood, Secretary.

The regular meeting of the Shelby County Medical Society was held on June 13th in the office of Dr. Vaughan at Shelbina. The minutes of the previous meeting were read and approved. Dr. Wood presented a case of dermatitis venenata caused by rat bane which had resisted all treatment. Drs. Smith, Pollard, Chapman, Vaughan, Owen and Dallas took part in the discussion. Dr. Dallas said he obtained the best results, in rhus poisoning, from a saturated solution of oxalic acid. Dr. Pollard said he found hyposulphite of soda effective in most cases.

The president was empowered to take steps necessary to prohibit illegal practice in Shelby County. A committee was appointed to report upon the best methods to increase the fees for night work. The society adjourned for the summer and the next meeting will be held in September. After adjournment the members were entertained with refreshments.

A. M. WOOD, Reporter.

STODDARD COUNTY MEDICAL SOCIETY.

Dr. D. R. Corbin, President.
Dr. Jno. Ashley, Secretary.

The Stoddard County Medical Society met in regular session at K. of P. hall, Bloomfield, Wednesday evening, June 21st. Meeting was called to order by the president. Minutes of previous meeting were read and approved. Members present were D. R. Corbin, T. C. Allen, S. M. Evans, John Douglas, J. L. Slaydon, E. Phillips, T. B. Turnbaugh, H. S. Winters, T. B. Wingo and Geo. Vernon.

Several of the members reported their delinquent lists and the secretary was ordered to have the same arranged alphabetically for the use of the members.

Dr. Wingo, chairman of committee on medical legislation, reported that it was the intention of the committee to go before the grand jury at its next session and have all physicians summoned to appear and inform that body of all irregular practice in their territory, including midwives, counter prescribing, etc.

Dr. Vernon presented a paper on "Catarrhal Fever with Malarial Complications." The subject was presented from a physiological standpoint, giving the various steps of deviation from the normal and sug-

gested the therapeutic means of treatment.

Dr. Allen, of Bernie, reported a case of malarial œdema of the brain and cord. This case and Dr. Vernon's paper were fully discussed by all present. It was the consensus of opinion that as the country was cleared and drained we saw less of malaria, and particularly of the pernicious type.

Dr. J. L. Slaydon presented two very interesting cases of puerperal infection which elicited a lively discussion covering the ground of autoinfection and the various modes of septic infection.

Dr. John Ashley presented the subject of "Summer Diarrhœas" in an able manner, dwelling largely on our defective hygiene as a causative factor and outlined the symptomatic treatment which he had found most successful in combating this scourge of infants.

By invitation of Dr. T. C. Allen, of Bernie, the society voted to meet at Bernie the first Wednesday in September. The doctor promised to present for discussion at this meeting the subject of "Watermelon with Samples."

Notwithstanding the lateness of the hour of adjournment the society was called to the banquet room where refreshments were served by the Bloomfield doctors, their wives and daughters. GEO. W. VERNON, M. D., Reporter.

CASS COUNTY MEDICAL SOCIETY.

Dr. R. D. Ramey, President.
Dr. J. S. Triplett, Secretary.

The Cass County Medical Society met in regular monthly session July 6, at Harrisonville, Dr. R. D. Ramey, president, in the chair. Three papers were read and discussed as follows:

1. "The Sympathetic Nervous System," by Dr. B. E. Dawson; discussion by Drs. Brierly, Triplett, Schoor, Scott and Crawford.

2. "The Tonsil; Some of Its Diseases and their Treatment," by Dr. H. S. Crawford; discussion by Drs. Brierly, Triplett, Dawson, Schoor and Ramey.

3. "Carbide of Calcum in Uterine Cancer," by Dr. E. Schoor. A quiz on "Anatomy of the Ischio-Rectal Region." "Classification of Hemorrhoids and their Treatment," was conducted by Dr. J. N. Scott.

This was a very interesting and profitable meeting and the members are becoming more enthusiastic in the work.

The next meeting will be at Harrisonville, August 3, 1905.

J. S. TRIPLETT, Reporter.

CHARITON COUNTY MEDICAL SOCIETY.

Dr. H. C. Tatum, President.
Dr. C. A. Jennings, Secretary.

Chariton County Medical Society met in regular session June 29th, at 1:30 P. M., eleven members being present. The minutes of the last meeting were read and approved.

Dr. Tatum presented a patient—a negro child three years old. The committee appointed to examine the case reported it as infantile paralysis of syphilitic origin. Treatment recommended was potas. iodide and tonics.

Dr. A. W. Zilman read a very interesting paper on "Biliary Calculi," and reported four cases operated upon successfully.

Altogether, this meeting was one of unusual interest and profit.

The next meeting will be held at Salisbury, on July 27th, at 1:30 P. M.

W. L. BAKER, Reporter.

NEWTON COUNTY MEDICAL SOCIETY.

Dr. J. L. Lamson, President.
Dr. Horace Bowers, Secretary.

The Newton County Medical Society met in the court rooms at Neosho, July 11th, nine members being present. One new member was admitted at this meeting, making a total membership of twenty-three.

Some clinical cases were presented by members of the society, and papers were read by Dr. W. D. Brown, of Newtonia, on "Tuberculosis," and Dr. Porter, of Seneca, on "Typhoid Fever." Interesting discussions followed, in which all members took part.

HORACE BOWERS, Secretary.

PULASKI COUNTY MEDICAL SOCIETY.

Dr. W. L. Ragan, President.
Dr. G. W. Orrick, Secretary.

The physicians of Pulaski county met at Richland, on May 11th, and organized the Pulaski County Medical Society. Those present were Drs. W. L. Ragan, E. A. Oliver, Geo. W. Thume, H. C. Murphy, of Richland; G. W. Orrick, N. J. Stebbins, of Crocker; R. F. Harrison, M. F. Rolens, W. C. Carter, of Dixon. The officers elected were as follows:

President, Dr. W. L. Ragan; vice-president, Dr. R. F. Harrison; secretary-treasurer, Dr. G. W. Orrick.

The constitution and by-laws adopted were in harmony with the constitution and by-laws of the State Medical Association.

Censors elected were: Dr. L. Tice, one year; Dr. Rolens, two years; Dr. Murphy, three years.

Dr. Harrison was appointed delegate to the meeting of the State Association at Excelsior Springs.

It was decided to hold meetings quarterly, the next meeting to be at Crocker, on the first Monday in August. At that meeting Dr. Orrick will read a paper on "Appendicitis," and Dr. Carter will read a paper on "Typhoid Fever."

G. W. ORRICK, Reporter.

HOLT COUNTY MEDICAL SOCIETY.

Dr. C. L. Evans, President.
Dr. J. F. Chandler, Secretary.

The Holt County Medical Society held the regular quarterly meeting at the court house in Oregon on July 6th, and after transacting the usual routine business, elected officers for the ensuing term as follows: Dr. C. L. Evans, Oregon, president; Dr. Ira Williams, Maitland, vice-president; Dr. J. F. Chandler, Forest City, secretary and reporter; Dr. S. N. Aiken, Oregon, Treasurer. Dr. Evans succeeds Dr. Quigley as president, and Dr. Williams succeeds Dr. Bullock as vice-president. Dr. Chandler was re-elected secretary and also elected reporter. Dr. Aiken succeeds himself as treasurer.

While the attendance was not so large as usual, the more active members of the county were in attendance and the meeting was the best since the organization of the society.

Owing to the inability of some of the members on the program to attend, there were but two papers presented, viz: Dr. Williams, a paper on "Cephalhæmatomata," and Dr. J. M. Davis, a paper on "Abortion."

In his report of a case Dr. Williams called the attention of the society to extreme jaundice and the eruption along the spine of the infant, both of which disappeared quickly on opening the tumor and removing the contents.

Dr. Davis in his paper on abortion took up its many phases and offered suggestions as to how physicians could do much to stop the practice whereby so many lives are endangered.

The next meeting will be held at Biglow October 5th.

J. F. CHANDLER, Reporter.

LAFAYETTE COUNTY MEDICAL SOCIETY.

Dr. P. S. Fulkerson, President.
Dr. C. T. Ryland, Secretary.

A regular meeting of the Lafayette County Medical Society was held at Higginsville, July 11th. Owing to bad weather the attendance was small. Two new members were voted in, making our number eighteen. Three new applications for membership were received, which were referred to the committee.

The secretary was instructed to examine the county records and report to the State Board of Health the names of all unregistered physicians practicing in the county. The society was informed that a woman was going over the county armed with speculum and probe, claiming to be an expert in the treatment of all female diseases. This fact the secretary was also instructed to report to the State Board of Health.

After our business was disposed of, Dr. W. A. Braecklein read a very interesting paper on the "Treatment of Cystitis," which was discussed by all present. Dr. Ryland made an extemporaneous report of a case of cystitis of very unusual cause. This case is still under treatment, and a further report will be made later.

Interest in the society seems to be increasing, and in the course of time we hope to enroll every reputable physician in the county. The next meeting will be held in Lexington, on the second Tuesday in September.

C. T. RYLAND, Secretary.

DUNKLIN COUNTY MEDICAL SOCIETY.

Dr. N. F. Kelly, President.
Dr. G. L. Johnson, Secretary.

The Dunklin County Medical Society met in Kennett on the second Tuesday in July.

Dr. Paul Baldwin reported four surgical cases, two being injuries of the skull, one of fracture of the nose and bones of the face, and one a case of "hatpin in the penis." Dr. Johnson reported a case of hematemesis which was readily controlled by hypodermic injections of ergotole. Dr. Rigdon reported a case of cystitis. All of the members present took part in the discussion of the cases.

By a vote the time of meeting was changed from the first to the second Tuesday in each month—the next regular meeting to be held in Senath, on the second Tuesday in August.

G. L. JOHNSON, Secretary.

CARTER-SHANON MEDICAL SOCIETY.

Dr. Frank Hyde, President.
Dr. J. A. Chilton, Secretary.

The Carter-Shanon County (Current River) Medical Society met at Birchtree June 20th, Dr. Frank Hyde in the chair. There were present seven physicians, as follows: Drs. Frank Hyde, T. A. Baltz, C. R. Hestler, T. W. Cotton, J. A. Chilton, P. D. Gum, and Davis.

The minutes of the previous meeting were read and approved, and certificates of membership were presented to those present.

Among the papers read and cases reported were the following: Paper, "Abortion from the Medico-Legal Aspect," Dr. Gum. This was a very interesting and well-written paper, and was freely discussed by the members present. In this paper Dr. Gum alluded to the fact that statistics regarding the number of abortions produced by a certain class of so-called doctors, "professionals" in this kind of dastardly work, were wanting and that the practice is more prevalent than might be thought. He also laid stress upon the amount of suffering from chronic diseases due to this cause. In discussing the paper, Dr. T. W. Cotton emphasized the proposition that the physician should resist every temptation to bring about an abortion under any circumstances, except where a council of physicians deemed it necessary to save the life of the mother.

Dr. Frank Hyde reported a very interesting case of general peritonitis in a girl ten years of age, due to intussusception, which succumbed on the tenth day, a few hours after a fecal fistula had developed near the umbilicus. This case was freely discussed and many important points brought out regarding the management of such cases.

Dr. Hastler reported a case of prostatitis in a patient eighty-four years of age, which was discussed with much interest.

A lively air of enthusiasm prevailed, and it was considered one of the most successful and profitable meetings held since the society has been in existence.

The society adjourned to meet some time in August at Van Buren.

J. A. Chilton, Reporter.

JEFFERSON COUNTY MEDICAL SOCIETY.

Dr. W. H. Farrar, President.
Dr. H. Will Elders, Secretary.

The Jefferson County Medical Society held its regular monthly meeting at Festus, June 27th, ten members being present; Dr. Farrar in the chair.

Several very interesting papers were read at this meeting. Dr. Harris read a paper on "Chronic Lead Poisoning," the discussion being opened by Drs. Donnell and Pickel.

A paper on "Chorea," by Dr. Taylor, and one entitled "Chronic Malaria," by Dr. J. F. Donnell, were of general interest and freely discussed.

A demonstration of the Klebs-Loeffler bacillus was made by Mr. Pernard. He also showed cultures and growth of the bacillus.

Jefferson County Medical Society is in a flourishing condition.

H. W. Elders, Secretary.

MONTGOMERY COUNTY MEDICAL SOCIETY.

Dr. J. L. Jones, President.
Dr. W. M. Wheeler, Secretary.

Montgomery County Medical Society met in regular session, with the president, Dr. Jones, in the chair.

On presentation of application in due form two new members were elected, viz.: Dr. F. C. Kollmeyer and Dr. B. F. Holcomb.

Dr. D. O. Hudson was elected vice-president.

Dr. Jones, delegate to the State Association meeting, made a verbal report of the work of the Association at the Excelsior Springs meeting.

The papers which had been prepared for this meeting were postponed in favor of a clinic of cases, a number of which were presented, examined and discussed by all present.

The next meeting will be held on August 18th.

CLAY COUNTY MEDICAL SOCIETY.

Dr. L. J. Jones, President.
Dr. F. H. Matthews, Secretary.

The Clay County Medical Society held its regular monthly meeting in Liberty, Monday, July 26th.

Dr. F. H. Matthews read a paper on the subject of "Intestinal Catarrh," which elicited a free discussion.

A very interesting discussion of "Cerebro-Spinal Meningitis" was opened by Dr. L. J. Jones. Cases with unusual features were reported by Dr. J. T. Marsh, Dr. Calvin Atkins and Dr. C. H. Suddarth.

There were present at this meeting Drs. L. J. Jones, J. M. Allen, E. H. Miller, J. T. Marsh, J. J. Rice, J. H. Rathwell, Calvin Atkins, C. H. Suddarth, R. E Sevier, W. N. Cuthbertson and F. H. Matthews.

The next meeting will be held in Excelsior Springs, Monday, July 31st.

F. H. Matthews, Reporter.

JACKSON COUNTY MEDICAL SOCIETY.

Dr. Robt. T. Sloan, President.
Dr. Max Goldman, Secretary.

The Jackson County Medical Society held its regular meeting June 8th, Dr. C. J. Morrow in the chair in the absence of the president.

The scientific program consisted of two papers on subjects of interest to the general practitioner, one, by Dr. E. G. Mark, on "Stricture of the Urethra," the other by Dr. G. E. Bellows, entitled "The Immediate Treatment of Eye Injuries."

Dr. Mark considered the advantages of the careful use of the endoscope, particularly in locating strictures of the urethra. He gave also a brief but clear outline of the principles of his treatment. Among other things, he mentioned (1) the various procedures indicated in stricture located at different portions of the urethra, (2) the absolute necessity of drainage in the treatment, especially if there exist any degree of toxemia, and (3), perhaps most essential, the importance of performing urethrotomy only at the site of the lesion, whether located at the roof or along the sides of the canal, without unnecessarily cutting any of the healthy structure.

The following took part in the discussion: Drs. R. E. Castelaw, W. L. Campbell, J. S. Eldredge, C. S. Mer-

riman, C. F. Roberts, S. G. Burnett and C. J. Morrow. Closed by Dr. Mark.

Dr. Bellows' paper consisted of a resume of the "first aid treatment" of the more common eye injuries, such as burns, contusions, superficial and deep penetration of foreign bodies, the treatment of prolapsed iris after incised wounds, and so on. The doctor afterward reported briefly an interesting case of melanosarcoma of the eyeball, followed by rapid, fatal metastatic developments in the abdominal viscera. The paper and report were well discussed by Drs. J. S. Mott, J. H. Thompson and C. L. Burke.

MEETING OF JUNE 22.

At the regular meeting of the Jackson County Medical Society on June 22d the scientific program was one of more than usual interest. Dr. I. J. Wolf read a paper entitled "Some Remarks on Epidemic Cerebro-Spinal Meningitis." The subject being one about which so much has been written and concerning which apparently so little is definitely known, all who were present enjoyed the very original and instructive paper and the general discussions which followed.

The doctor at first spoke of the different causes of the disease, stating that the study of its etiology is of very great value as an aid in the use of prophylaxis against attacks. Among the predisposing causes he mentioned influenza. Little seems to be known, however, of its causation, of the method of entrance of the etiologic factor, or mode of its dissemination. The question whether the disease is contagious or infectious took up some time of the essayist. The description of a typical case of acute meningitis and pictures of mild as well as of intensely malignant attacks then followed. In detailing the above types the essayist brought out with no slight degree of emphasis the horrible features attending every attack of the disease. He made a few remarks on the differentiation between hysteria and cerebro-spinal meningitis, and the value of lumbar puncture in arriving at a definite diagnosis. The treatment of the disease consists of prophylaxis, medicinal and dietetic measures, lumbar puncture and the administration of antitoxin. All therapeutic measures should be given a trial. The prognosis should always be guarded.

The discussion was opened by Dr. H. O. Hanawalt, who, in his remarks, laid considerable stress on the importance of differentiating between cerebro-spinal meningitis and hysteria, which in many instances may completely mask the disease. Others taking part in the discussion were Drs. John Punton, B. H. Zwart and N. A. Stevens. Dr. Wolf closed the discussion.

Dr. E. G. Mark reported a case of syphilis contracted by one individual striking another in the teeth, thereby cutting the knuckle of his right hand, at which point there developed a typical chancre, followed and accompanied by all the signs of syphilitic infection, particularly the general adenopathy with its characteristic features. A photograph of the lesion was exhibited. The condition responded happily to anti-syphilitic treatment.

At this meeting the society adjourned for the summer, to meet again in September.

New members: Dr. William Rice and Dr. C. L. Cooper, making a total membership of 235 in good standing.

MAX GOLDMAN, M. D., Sec'y.

LIVINGSTON COUNTY MEDICAL SOCIETY.

Dr. David Gordon, President.
Dr. J. F. Cherrington, Secretary.

The regular monthly meeting of the Livingston County Medical Society was held in Chillicothe, Wednesday, June 21, 1905.

The Chillicothe members gave a twelve o'clock luncheon to the members of the society and their wives and the visiting medical men.

The session was called to order at 2 P. M. in the circuit court room, and the following program was carried out:

1st. An instructive and entertaining talk upon "Medical Legislation and Medical Ethics," by Dr. Herman E. Pearse, of Kansas City. Discussion by Dr. O. Beverly Campbell, of St. Joseph, and others.

2d. "Ectopic Gestation, with Cases," by Dr. O. B. Campbell, of St. Joseph.

This was a splendid paper, of interest to all, and was discussed by Dr. Pearse and others.

A vote of thanks was tendered Drs. Campbell and Pearse for their presence and interesting talks.

3d. "Scarlet Fever," by Dr. H. M. Grace, of Chillicothe. Discussion by Drs. J. F. Cherrington, B. N. Stevens, J. H. Winter, G. A. Gordon and G. W. Hutchison.

4th. Dr. R. H. Cabel made interesting and timely remarks upon the expediency of clinical cases rather than papers at our meetings, deeming the cases more instructive and serving best to promote interest in our meetings.

5th. "Local Analgesis," a paper by Dr. B. N. Stevens, was well received and commended by the members for the ideas presented.

Dr. H. C. Gibson, of Moorsville, and Dr. A. J. Simpson, of Chillicothe, having complied with the requirements of the society, were duly elected to membership.

Dr. W. K. Crellin, resident of Chillicothe, and formerly a prominent physician of this county, now retired, was unanimously elected to honorary membership.

Dr. B. N. Stevens offered a resolution changing the time of meetings of the society from the third Wednesdays of each month to the second Wednesday of January, April, July and October. The resolution was laid upon the table until the July meeting.

The following were elected members of the board of censors: Dr. L. E. Tracy, three years; Dr. H. M. Grace, two years; Dr. F. P. Batdorff, one year.

On motion, the board of censors was instructed to collect all articles appearing in the county papers concerning any member of the society or his work savoring of advertising, and read the same at the next meeting following the appearance of such article, and that the member to whom it refers be permitted to explain.

The president appointed the following committee on public health and legislation: Drs. Reuben Barney, of Chillicothe; W. L. White, of Springhill, and H. N. Carver, of Chillicothe.

The secretary was instructed to act as reporter for the society to the State Association Journal.

J. F. CHERRINGTON, Reporter.

LACLEDE COUNTY MEDICAL SOCIETY.

Dr. J. M. Billings, President.
Dr. J. A. McComb, Secretary.

The Laclede County Medical Society met at Lebanon on July 17th, Dr. Billings presiding.

Dr. Jacobs, of Conway, read a very instructive paper on "Early Diagnosis of Tuberculosis." Two cases of tuberculosis were presented, one of some months' duration, the other in its incipiency, and the members devoted considerable time to examining the cases and comparing conditions. The discussion on Dr. Jacobs' paper was full of interest and profit. Dr. Smith, of Orla, presented a case for examination.

Dr. W. R. Lucas, of Springfield, was present as a visitor.

At the next meeting Dr. W. R. Summers, of Niangua, will read a paper on "The Early Treatment of Phthisis Pulmonalis." On motion, the by-laws were changed so that the annual election of officers will be held at the first meeting in the year, and payment of dues will be made at that time. The society will meet in future on the second Monday in January, April. July and October.

J. A. MCCOMB, Reporter.

NEWS ITEMS.

Surgical and Obstetrical Instruments for Sale.—The surgical and obstetrical instruments of the late Dr. A. Derivaux, consisting of the most recent models, are for sale at reasonable prices. Mrs. Derivaux will furnish list of instruments and prices to applicants. Address 2723 Russell avenue, St. Louis, Mo.

Officers American Medical Association.—The following officers were elected at the Portland meeting of the American Medical Association: President, William J. Mayo, Rochester, Minn.; First Vice-President, Brigadier-General Walter Wyman, Washington, D. C.; Second Vice-President, K. A. J. Mackenzie, Portland, Ore.; Third Vice-President, Eugene S. Talbot, Chicago; Fourth Vice-President, Edwin D. Martin, New Orleans; General Secretary, Geo. H. Simmons, Chicago; Treasurer, Frank Billings, Chicago.

The Governor has appointed the following Commissioners for the State Sanatorium for the treatment of incipient tuberculosis: Dr. W. M. Bayless, Macon; Dr. J. L. Eaton, Bismarck; Dr. L. C. McElwee, St. Louis; W. L. Gupton, Montgomery City; W. D. Craig, Galena.

Frank Parsons Norbury, A. M., M. D., editor of the *Medical Fortnightly* and Medical Superintendent of Maplewood Sanatorium, Jacksonville, Illinois, has accepted the Chair of Nervous and Mental Diseases, Keokuk Medical College.

COUNTY SOCIETIES IN AFFILIATION WITH THE STATE MEDICAL ASSOCIATION.

County.	President.	Address of President.	Secretary.	Address of Secretary.
Adair	James Hanks	Brashear	E. C. Grim	Kirksville.
Andrew	D. B. Bryant	Savannah	C. O. Jeffries	Savannah.
Atchison	G. W. Lott	Ulesboro	A. McMichael	Rockport.
Audrain	C. A. Rothwell	Mexico	E. S. Cave	Mexico.
Barton	G. D. Allee	Lamar	J. L. McComb	Kenoma.
Bates	A. E. Lyle	Butler	E. N. Chastain	Rich Hill.
Benton	G. S. Greeson	Lincoln	S. O. Davis	Warsaw.
Boone	J. E. Thornton	Columbia	W. A. Norris	Columbia.
Buchanan	P. I. Leonard	St. Joseph	Chas W Fassett	St. Joseph.
Butler	W. A. Kendall	Poplar Bluff	J. J. Norwine	Poplar Bluff.
Caldwell	C. C. Leeper	Braymer	Tinsley Brown	Hamilton.
Callaway	J. F. Harrison	Fulton	Martin Yates	Fulton.
Camden	G. M. Moore	Linn Creek	G. T. Myers	Macks Creek.
Cape Girardeau	H. L. Cunningham	Cape Girardeau	E. P. Potterfield	Cape Girardeau.
Carroll	W. C. Baird	Bogard	R. F. Cook	Carrollton.
Carter-Shannon	F. Hyde	Eminence	J. A. Chilton	Van Buren.
Cass	R. D. Ramey	Garden City	J. S. Triplett	Harrisonville.
Chariton	H. C. Tatum	Brunswick	C. A. Jennings	Salisbury.
Clark	H. W. Harris	Winchester	A. C. Bridges	Kahoka.
Clay	L. J. Jones	Linden	F. H. Matthews	Liberty.
Clinton	John Sturgis	Perrin	E. A. Colley	Platte City.
Cole	J. P. North	Jefferson City	G. Ettmueller	Jefferson City.
Cooper	P. L. Hurt	Boonville	R. S. Holman	Boonville.
Crawford	W. A. Metcalf	Steelville	A. H. Horn	Steelville.
Davies	J. D. Dunham	Pattonsburg	M. A. Smith	Gallatin.
Dunklin	N. F. Kelley	Kennett	G. L. Johnson	Kennett.
Franklin	H. A. Booth	Pacific	A. C. Brown	Moselle.
Gasconade-Maries-Osage	J. J. Ferrell	Owensville	J. W. Nieweg	Lois.
Greene	W. P. Patterson	Springfield	Robt. M. Cowan	Springfield.
Grundy	J. A. Asher	Trenton	W. D. Fulkerson	Trenton.
Henry	Jno. H. Britts	Clinton	F. M. Douglas	Clinton.
Holt	B. T. Quigley	Mound City	J. F. Chandler	Forest City.
Howard	A. W. Moore	Fayette	C. W. Watts	Fayette.
Howell	J. W. Bingham	Pottersville	H. C. Shuttee	West Plains.
Iron	R. W. Gay	Ironton	Ira A. Marshall	Ironton.
Jackson	Robt. T. Sloan	Kansas City	Max Goldman	Kansas City.
Jasper	A. B. Freeman	Joplin	J. T. Stamey	Joplin.
Jefferson	W. H. Farrar	DeSoto	H. Will Elder	DeSoto.
Johnson	M. P. Shy	Knobnoster	E. H. Gilbert	Warrensburg.
Knox	S. S. Brown	Edina	Henry J. Jurgen	Edina.
Laclede	I. M. Billings	Lebanon	J. A. McComb	Lebanon.
Lafayette	P. S. Fulkerson	Lexington	C. T. Ryland	Lexington.
Lincoln	S. R. McKay	Troy	Wm. P. Smith	Troy.
Linn	K. V. Stanley	Brookfield	D. F. Howard	Brookfield.
Livingston	David Gordon	Chillicothe	J. F. Cherrington	Chillicothe.
McDonald	E. F. Doty	Anderson	M. L. Sellers	Anderson.
Macon	E. S. Smith	Macon	G. B. Rush	Macon.
Madison	G. W. Greenwood	Fredericktown	C. U. Davis	Fredericktown.
Marion	R. H. Goodier	Hannibal	F. Janet Reid	Hannibal.
Mercer	H. P. Chesmore	Princeton	C. R. Buren	Princeton.
Miller	S. P. Hickman	Ulman	G. D. Walker	Eldon.
Mississippi	A. J. Martin	East Prairie	W. P. Howle	Charleston.
Moniteau	J. B. Stewart	Clarksburg	W. R. Patterson	Tipton.
Monroe	S. M. Brown	Monroe City	M. C. McMurry	Paris.
Montgomery	J. L. Jones	Jonesburg	W. M. Wheeler	High Hill.
Morgan	W. L. Hatler	Barnett	J. T. Beale	Versailles.
Newton	I. W. Lamson	Neosho	Horace Bowers	Neosho.
Nodaway	J. A. Larrabee	Barnard	F. R. Anthony	Maryville.
Pemiscot	D. B. Crowe	Caruthersville	J. G. Luten	Caruthersville.
Perry	T. M. Hudson	Perryville	F. M. Vessells	Perryville.
Pettis	W. C. Overstreet	Sedalia	W. J. Ferguson	Sedalia.
Phelps	W. H. Breuer	St James	S. L. Baysinger	Rolla.
Pike	M. O. Biggs	Rowling Green	T. Guy Hetherlin	Louisiana.
Platte	R. P. Davis	Woodruff	G. C. Coffey	Platte City.
Pulaski	W. L. Ragan	Richland	G. W. Quick	Crocker.
Putnam	C. H. Carryer	Hartford	T. A. Townsend	Unionville.
Ralls	O. B. Hicklin	New London	T. J. Downing	New London.
Randolph	G. O. Cuppaidge	Moberly	W. M. Dickerson	Renick.
Ray	Chas. B. Shotwell	Richmond	L. D. Greene	Richmond.
Reynolds	I. M. Lowery	Centerville	T. W. Chilton	Corridon.
Saline	D. C. Gore	Marshall	D. F. Bell	Marshall.
St. Charles	J. R. Mudd	St. Charles	A. A. Gossow	St. Charles.
St. Clair	W. Cline	Appleton City	E. D. Miles	Osceola.
Ste. Genevieve	M. Andre	St. Genevieve	F. E. Hinch	St. Genevieve.
St. Louis	F. L. Henderson	Century Bldg.	T. A. Hopkins	Century Building.
St. Louis Co.	H. G. Wyer	Kirkwood	H. T. Randle	Clayton.
Schuyler	J. T. Jones	Queen City	H. E. Gerwig	Downing.
Scotland	W. E. Alexander	Memphis	O. F. Pile	Memphis.
Shelby	H. C. Vaughn	Shelbina	A. M. Wood	Lentner.
Stoddard	D. R. Corbin	Bloomfield	Jno. Ashley	Bloomfield.
Sullivan	I. C. Kessenger	Milan	J. S. Montgomery	Milan.
Vernon	H. C. Jarvis	Schell City	T. B. Todd	Richards.
Warren	W. J. Alexander	Marthasville	E. A. Fluesmeier	Wright City.
Washington	J. A. Eaton	Belgrade	W. S. Smith	Belgrade.
Wayne	L. M. Pettit	Greenville	I. N. Barnett	Piedmont.

MEETINGS OF COUNTY MEDICAL SOCIETIES.

County.	Date of Meeting.
Adair	Quarterly. Last Tuesday, Jan., April, July, Oct.
Andrew	Monthly. First Wednesday.
Atchison	Quarterly. January, April, July, October.
Audrain	Monthly. First Monday.
Barton	Quarterly. First Thursday, May, Aug., Nov., Feb.
Bates	Quarterly. Last Thursday in Feb., May, Aug. and Nov.
Boone	Monthly. First Monday.
Buchanan	Semi-Monthly. First and Third Saturday.
Butler	Weekly. Fridays.
Caldwell	Quarterly. July, October, January, April.
Callaway	Monthly. Second Thursday.
Camden	Quarterly. Second Monday, April, July, Oct. and Jan.
Cape Girardeau	Monthly. Second Wednesday.
Carroll	Monthly. Second Tuesday.
Carter-Shannon	Quarterly. February, May, August, and November.
Cass	Quarterly. First Thursday of March, June, Sept. and Dec.
Chariton	Monthly. Last Thursday.
Clark	Bi-Monthly. First Mondays, Feb., April, June, Aug., Oct., Dec.
Clay	Monthly. Last Monday.
Clinton	Monthly.
Cole	Quarterly. Second Thursday of Jan., April, July, Oct.
Cooper	Monthly. First Tuesday.
Crawford	Quarterly. First Tuesday, April, July, October, January.
Daviess	Quarterly. January, April, July, October.
Dunklin	Monthly. First Tuesday.
Franklin	Monthly. First Tuesday.
Gasconade-Maries-Osage	Monthly.
Greene	Weekly. Saturday.
Grundy	Quarterly. July, October, January, April.
Henry	Monthly. Second Tuesday.
Holt	Quarterly. January, April, July, October.
Howard	Monthly. Third Tuesday.
Howell	Bi-Monthly. First Thursday of Dec., Feb., April, June, Aug., Oct.
Iron	Monthly. First Saturday.
Jackson	Semi-Monthly. Second and Fourth Thursdays.
Jasper	Semi-Monthly. First and Third Mondays.
Jefferson	Monthly. Fourth Tuesday.
Johnson	Quarterly. June, September, December, March.
Knox	Monthly. First Monday.
Laclede	Semi-Annually. First Mondays May and November.
Lafayette	Monthly. Second Tuesday, Jan., Mch., May, July, Sept., Nov.
Lincoln	Quarterly. May, August, November, February.
Linn	Quarterly. October, January, April, July.
Livingston	Monthly. Third Wednesday.
McDonald	Monthly. First Wednesday.
Macon	Monthly. On or before full moon, Tuesday, 10 a. m.
Madison	Semi-Monthly. First and Third Monday.
Marion	Monthly. First Friday.
Mercer	Monthly. Second Thursday.
Miller	Quarterly. First Thursday, March, June, Sept. Dec.
Mississippi	Monthly. First Monday.
Moniteau	Quarterly. March, June, September, December.
Monroe	Quarterly. First Tuesday of April, July, October, January.
Montgomery	Monthly.
Morgan	Quarterly. First Wednesday of March, June, Sept., Dec.
Newton	Monthly. Second Tuesday.
Nodaway	Monthly. Second Tuesday.
Pemiscot	Quarterly. First Tuesday, January, April, July, November.
Perry	Monthly. First Wednesday.
Pettis	Semi-Monthly. First and Third Monday.
Phelps	Quarterly. March, June, September, December.
Pike	Monthly.
Platte	Monthly. First Wednesday.
Pulaski	Monthly.
Putnam	Monthly. First Wednesday.
Ralls	Quarterly. January, April, July and October.
Randolph	Monthly. Second Tuesday.
Ray	Monthly. Third Wednesday.
Reynolds	Quarterly. January, March, June, October.
Saline	Monthly. Second Tuesday.
St. Charles	Monthly.
St. Clair	Quarterly. Second Tuesday, March, June, Sept., Dec.
Ste. Genevieve	Monthly. Second Wednesday.
St. Louis	Weekly. Saturdays.
St. Louis County	Monthly. Second Wednesday.
Schuyler	Semi-Annually. July and December.
Scotland	Monthly. Second Tuesday.
Shelby	Quarterly. June, September, December, March.
Stoddard	Quarterly. First Wednesday, March, June, Sept., Dec.
Sullivan	Monthly.
Vernon	Quarterly. First Tuesday, March, June, Sept. and Dec.
Warren	Monthly.
Washington	Monthly. First Saturday.
Wayne	Monthly.

AMERICAN MEDICAL ASSOCIATION.

Next Annual Meeting at Boston, Mass.

President-Elect: WM. J. MAYO, Rochester, Minn.
President: LOUIS S. McMURTRY, Louisville, Ky.
First Vice-President: WALTER WYMAN, Washington, D. C.
Secretary and Editor: GEORGE H. SIMMONS, 103 Dearborn Ave., Chicago.
Treasurer: FRANK BILLINGS, Chicago.

MISSOURI STATE MEDICAL ASSOCIATION.

Next Annual Meeting, Jefferson City, May, 1906.

President: D. C. GORE, Marshall, Mo.
Vice-Presidents:
C. D. AVERY, Troy; J. P. BURKE, Laclede; F. A. GLASGOW, St. Louis; T. F. LOCKWOOD, Butler; E. LOWREY, Excelsior Springs.
Secretary: C. M. NICHOLSON, St. Louis.
Assistant Secretary: E. J. GOODWIN, St. Louis.
Treasurer: J. FRANKLIN WELCH, Salisbury.

COMMITTEES.

Committee on Scientific Work.

C. M. Nicholson, Chairman; E. L. Chambliss, A. R. Kieffer.

Publication Committee.

C. M. Nicholson, Chairman; F. J. Lutz, B. M. Hypes; W. B. Dorsett.

Committee on Public Policy and Legislation.

F. J. Lutz, Chairman; W. S. Allee, H. E. Pearse.

COUNCILLOR DISTRICTS AND LIST OF COUNTIES IN EACH DISTRICT.*

First District.—F. B. Hiller, Kahoka. Counties: Clark, Scotland, Schuyler, Adair, Knox, **Lewis.**

Second District.—J. D. Brummall, Salisbury. Counties: Linn, Carroll, Chariton, Livingston, Grundy, Sullivan, Mercer, Putnam.

Third District.—E. H. Miller, Fayetteville. Counties: **Clay, Ray, Platte, Clinton, Caldwell, DeKalb, Gentry, Harrison, Worth,** Daviess.

Fourth District.—C. H. Wallace, St. Joseph. Counties: Buchanan, Holt, Atchison, Nodaway, Andrew.

Fifth District.—L. W. Dallas, Hunnewell. Counties: Macon, Shelby, Marion, Randolph, Monroe, Ralls.

Sixth District.—Woodson Moss, Columbia. Counties: Audrain, Callaway, Montgomery, Warren, Pike, Boone, Howard, St. Charles.

Seventh District.—W. B. Dorsett, St. Louis. Counties: St. Louis, Lincoln.

Eighth District.—F. J. Lutz, St. Louis. Counties: Franklin.

Ninth District.—B. M. Hypes, St. Louis. Counties: Jefferson, Washington, **St. Francois,** Reynolds, Iron, Perry, St. Genevieve.

Tenth District.—J. J. Norwine, Poplar Bluff. Counties: Mississippi, **New Madrid,** Wayne, Stoddard, Dunklin, Butler, **Ripley,** Carter, Pemiscot.

Eleventh District.—W. D. Porterfield, Jr., Cape Girardeau. Counties: **Bollinger,** Scott, Madison, Cape Girardeau.

Twelfth District.—W. S. Allee, Olean. Counties: Miller, Morgan, Maries, Cole, Moniteau, Camden, Osage, Gasconade.

Thirteenth District.—R. D. Haire, Clinton. Counties: Pettis, Lafayette, Henry, St. Clair, Benton, Saline, **Hickory,** Cooper.

Fourteenth District.—M. P. Overholser, Harrisonville. Counties: Jackson, Cass, Bates, Johnson.

Fifteenth District.—A. R. Snyder, Joplin. Counties: McDonald, Newton, Jasper, **Dade,** Barton, **Cedar,** Vernon.

Sixteenth District.—R. L. Johnson, Rolla. Counties: **Dallas,** Crawford, Phelps, Pulaski, Laclede, **Dent.**

Seventeenth District.—J. E. Tefft, Springfield. Counties: Greene, **Christian, Stone, Barry, Lawrence, Webster, Polk, Taney.**

Eighteenth District.—H. C. Shuttee, West Plaines. Counties: **Ozark, Oregon,** Howell, **Texas, Wright, Shannon, Douglas.**

*Counties in **black type** are unorganized.